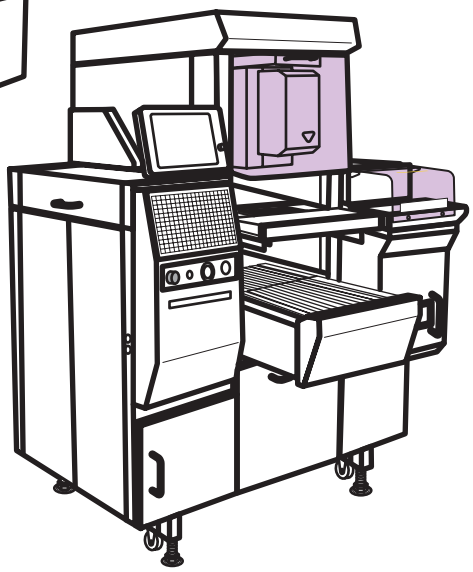
OMNi-3000S/ST

SERVICE MANUAL

OMNi-3000S

OMNi-3000ST



IMPORTANT

- Do not carry out installation, operation, service, or maintenance until thoroughly understanding the contents of this manual.
- Keep this manual available at all times for installation, operation, service, and maintenance.

ISHIDA CO., LTD.

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SAFETY CONSIDEATIONS

This service manual contains information necessary for servicing the OMNi-3000ST. It is strongly advised that you read and clearly understand the contents of this manual before beginning any maintenance on this machine. The following safety measures must be observed to ensure the safe servicing of this machine:

- **Servicing is to be done by qualified service personnel only**
  These service instructions are for use by qualified service personnel who fully understand the potenti hazards involved. To avoid any possible danger, do not perform any service procedures unless qualified to do so.
- **Perform only the specified service procedures**
  To ensure personal safety, do not perform any service procedures that are not specifically mentioned in this manual.
- **Properly ground machinery**
  As a Class 1 electrical device, this machine requires protective grounding for safe operation. To avoid any potential electrical shock, securely attach the protective ground wire to the main grounding provision.
- **Avoid servicing while power is being supplied**
  Power supply to the machine is disconnected only when the electrical plug is removed from the electrical outlet. For protection against electrical shock, remove plug before performing any servicing to the machine. Machine servicing while power is being supplied and covers or enclosures are opened or removed should be avoided as much as possible. When servicing cannot be performed by any other means, service personnel should take precautions against the danger of electrical shock or other potential hazard involved.
- **Take precaution against residual electrical charge hazard**
  Capacitors inside the machine may still hold an electrical charge even after power is disconnected.
- **Use same type fuses and components for replacement parts**
  To avoid the potential hazards involved, do not replace fuses or components with types other than those specified in the parts list for this machine.

MAINTENANCE PRECAUTIONS

To insure the safety and long operating life of this machine, it is important to observe the following precautions:

- **Keep the area around the machine clear of any dust and debris**
- **Do not leave screws or other foreign objects in the machine after performing routine maintenance since this can cause major damage to the machine when the electrical switch is turned on.**
- **Always remove wires by holding the connector and pulling to disconnect.**
  Do not disconnect by pulling on the wires themselves since this may cause a wire to snap or damage he connection.
- **Before disassembling or adjusting this machine, make sure you thoroughly understand and follow each step in the order indicated in this manual.**

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Chapter 1

OMNi-3000S OVERVIEW

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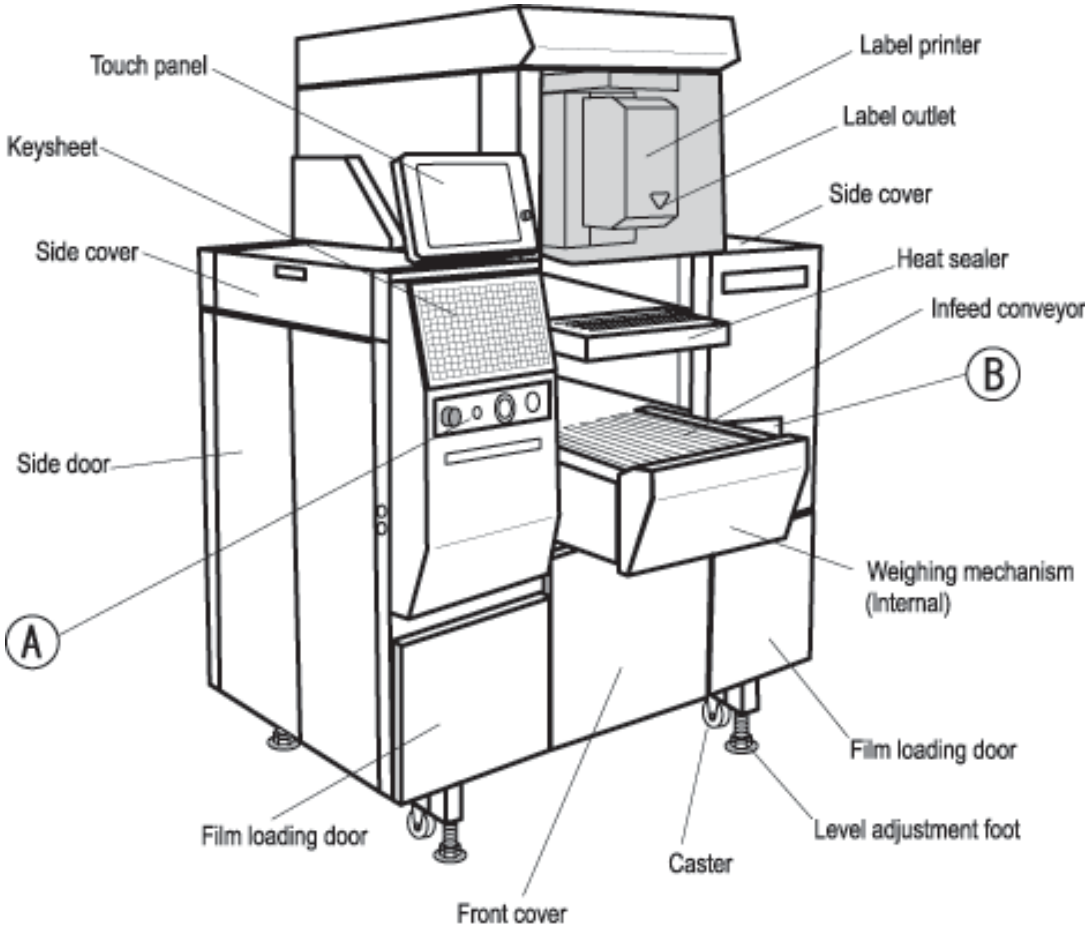
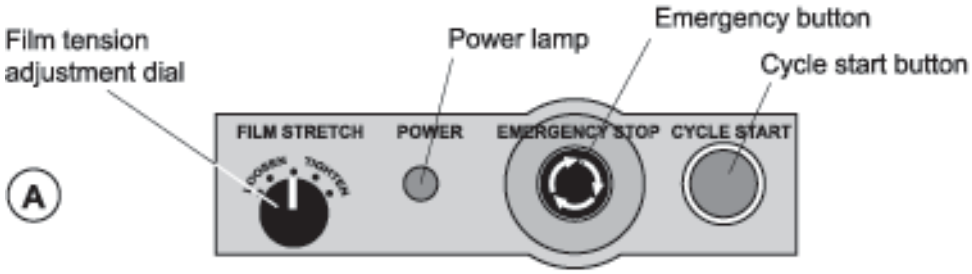
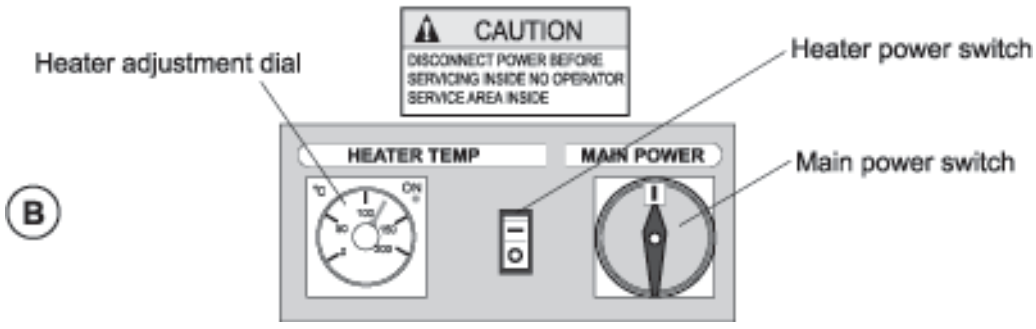




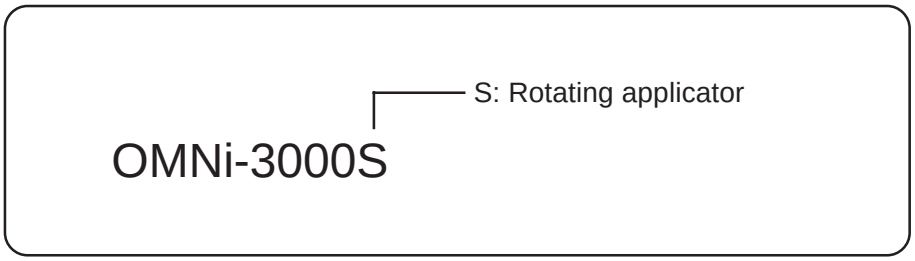


1.2 BASIC SPECIFICATIONS

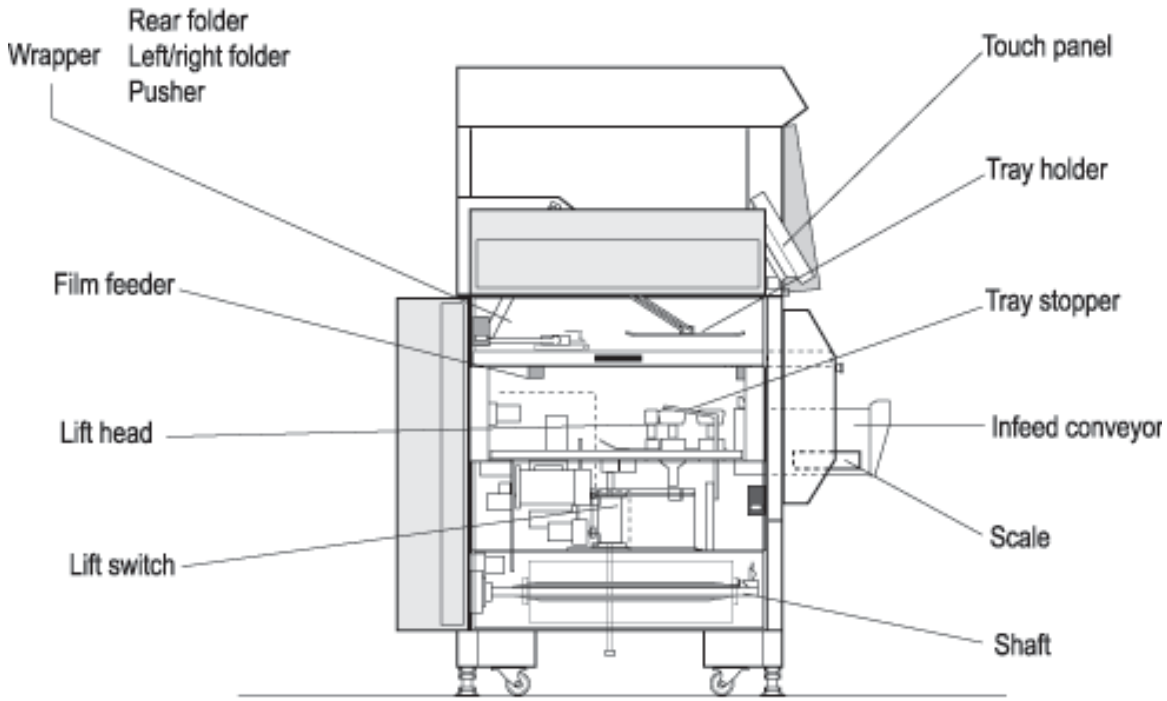
Scale	Weighing capacity	30lb
	Wrapping capacity	15lb
	Accuracy	1/3000
	Minimum graduation	0.01 lb. (Single range)
Printer	Thermal head	60mm, 7.4 dot/mm
	Printing speed	85mm/sec.
	Printing size	Auto: 64mm (W) × 85mm (H) Manual : 64mm (W) × 120mm (H)
	Font style	Reverse, Bold, Bold Reverse, Underline, Ruled Line
Control Console	Display method	9.4 inch analog touch panel
	Preset keys	72 × 2 keys
	Function keys	48 keys
	Number of programs	Up to approx. 3000 (when production total is not performed)
Wrapper	Wrapping speed	Max. 30 packs/min. (190 × 100mm tray)
	Wrapping size	130 to 410mm (W) : 5.1 to 16.1 inch 130 to 260mm (D) : 5.1 to 10.2 inch 20 to 150mm (H) : 0.8 to 5.9 inch
	Film size	350 to 610mm: 13.8 to 24.0 inch
	Film material	Poly orephine / vinyl chloride
Power supply		3-phase 208 (220/240) VAC, 60Hz

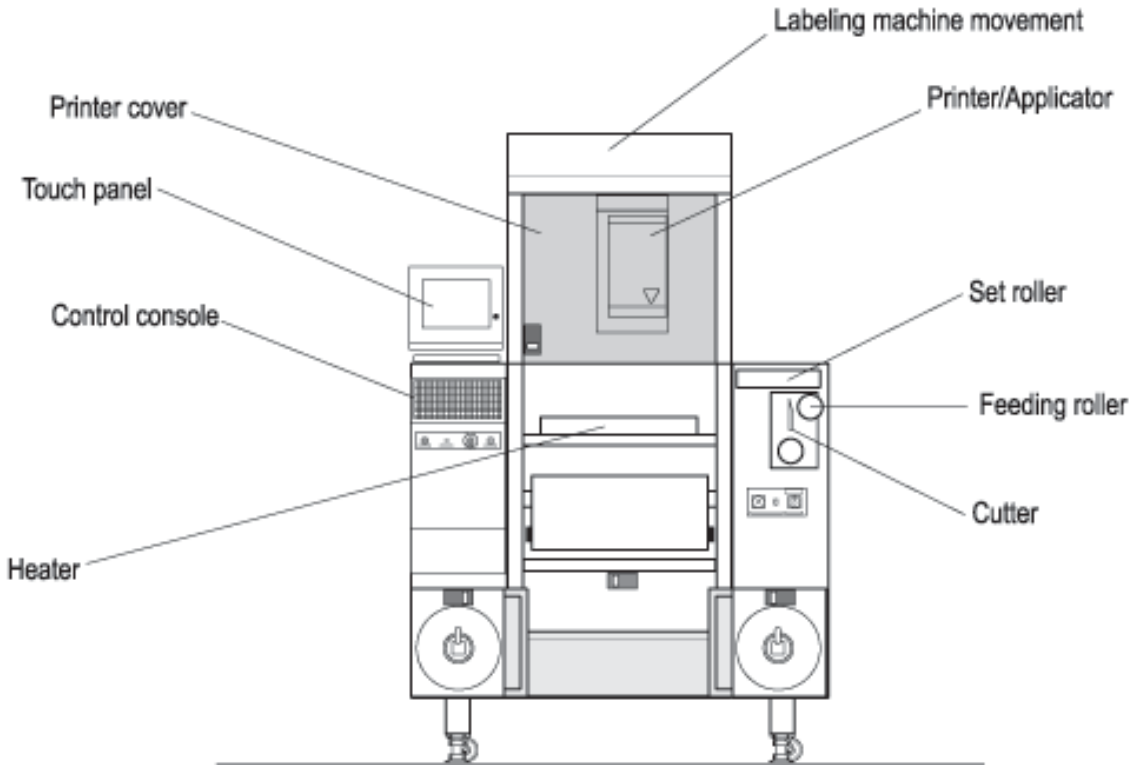
Note 1: Wrapping conditions listed in the above specifications may differ depending on tray shape or weight.

2: Specifications are subject to change without prior notice.

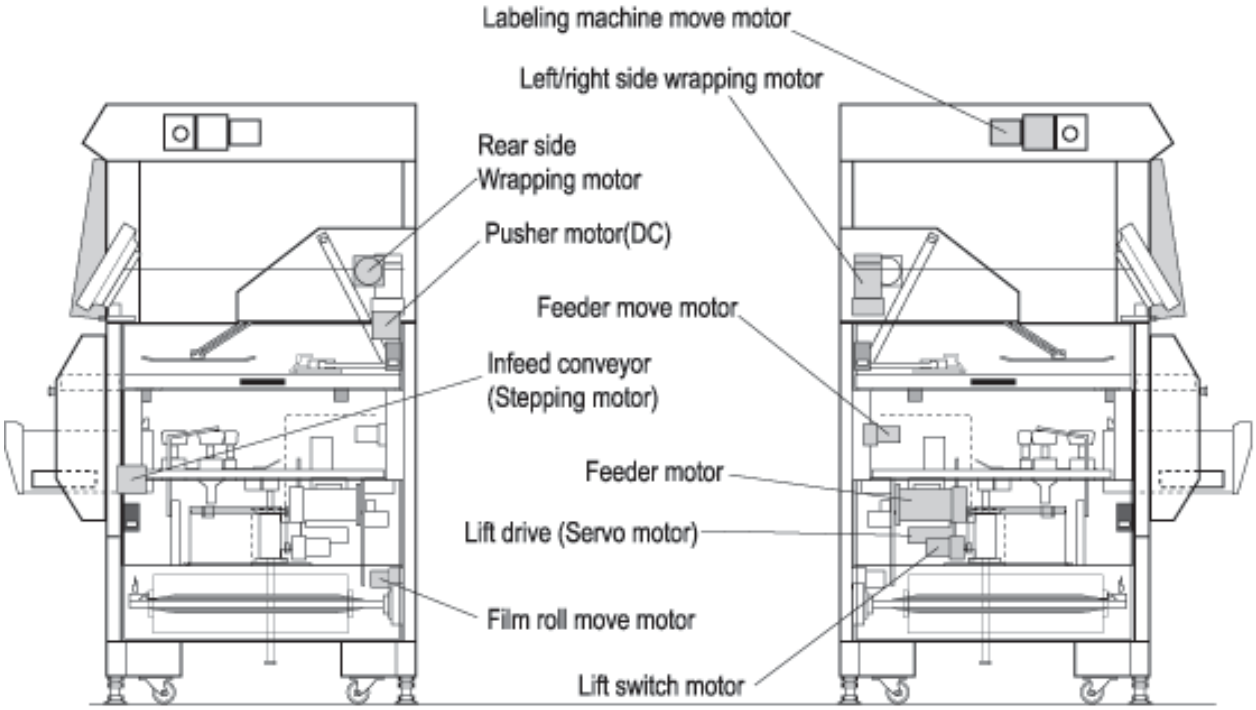


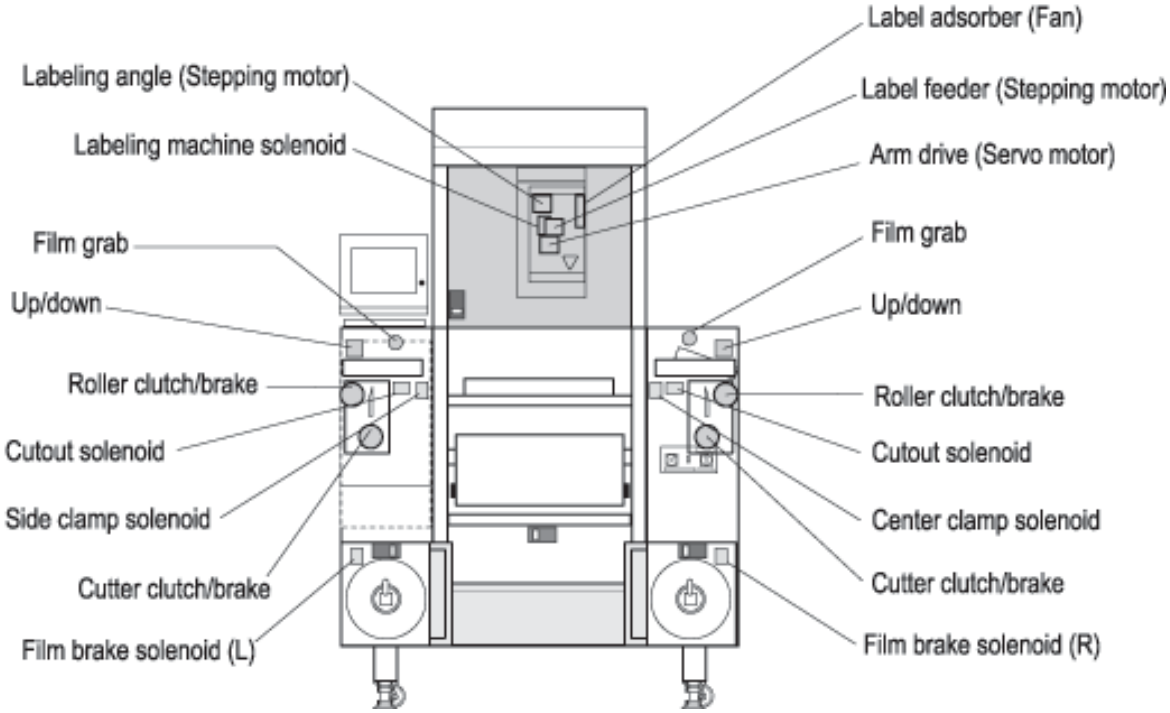
1.3 NAME OF EACH UNIT



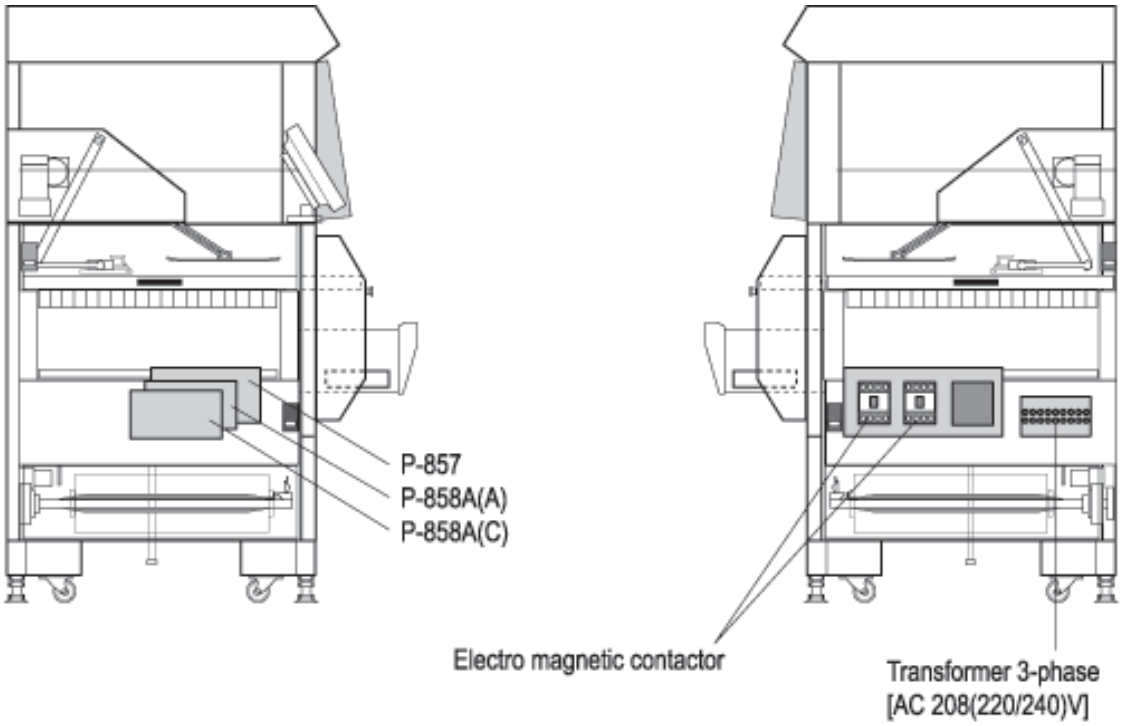


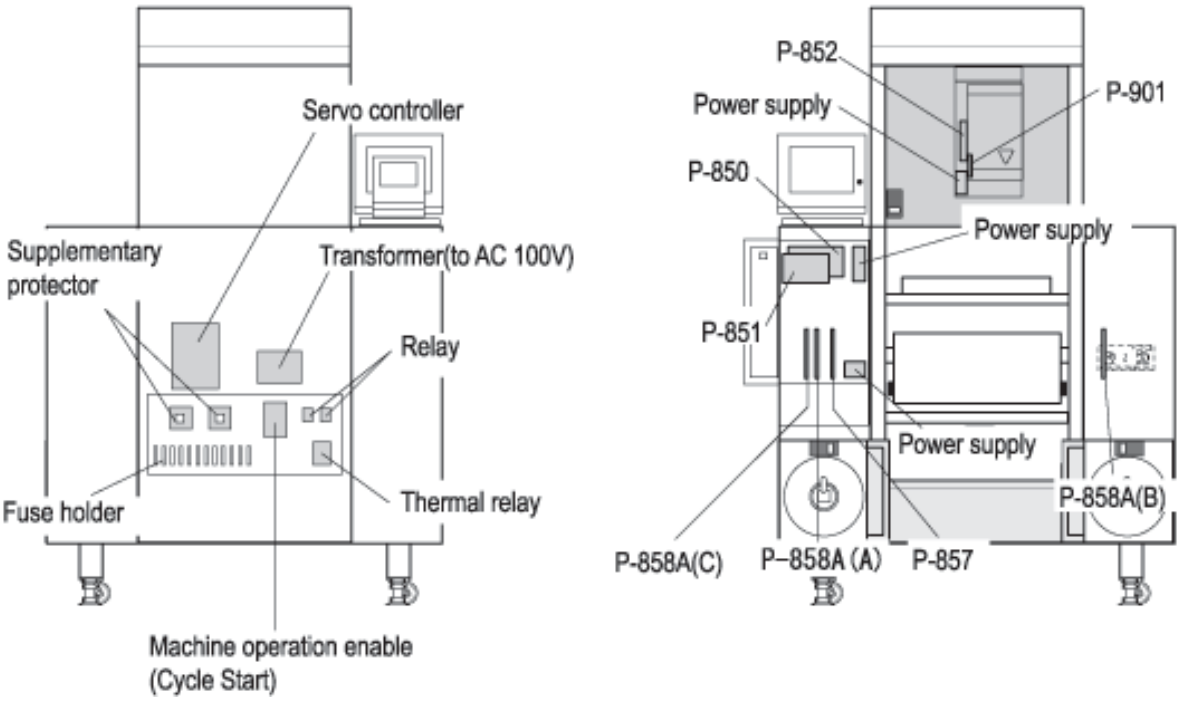
1.4 NAME OF EACH MOTOR





1.5 NAME OF EACH POWER SUPPLY





1.6 FUNCTION OF EACH UNIT

Infeed Conveyor	- Transports the tray to the lift heads. - Contains the scale and is driven by the stepping motor after the tray is weighed. The motor drives a chain containing four claws which push the tray. The chain stops when it passes the reference position sensor.
Scale	- Weighs a maximum capacity of up to 30lb 0.01lb (from 15lb up to 30lb).
Lift Drive	- Lifts the tray vertically up to the wrapper unit. - The servo controller receives the activating signal and is started by the controller. The lift drive utilizes two different movements: “Up/down for wrapping” and “Up/down for switching between large and small lift”.
Lift Heads	- Transports trays and tilt to facilitate the wrapping action. - There are 10 heads, out of which three sliding heads are used depending on the tray size.
Lift Switch	- Moves the lever to the appropriate size using a servo motor. - Switches the lift heads from “large to small” and “small to large”.
Rear Wrapping Plates	- Wraps the film underneath the rear of the tray. - The motor starts with the wrapping start timing. - The wrapping plate moves forward and pushes the film underneath the rear of the tray.
Left/Right Wrapping Plates	- Wraps the film over the sides of the tray. - The motor starts with the wrapping start timing. - The left and right wrapping plates slide in and fold the film underneath the tray.
Pusher	- Wraps the film under the front of the tray and pushes the tray out. - The motor starts with the wrapping start timing. - The pusher comes forward, folding the film underneath the tray in time with the feeder clamp.
Feeder Drive	- Drives the feed belt, feed roller and cutter. - When the motor moves, the front and back feeders turn the number of times specified by the encoder. The feed roller and cutter switch on and off using a clutch and brake.
Feeder Mover	- Moves the rear feeder depending on the size of the film using a motor. - For 2 and 3 roll types, the sensors detect the width of each film and moves to the film width. - For the 1 roll type, the feeder mover moves to the where the sensor detects the end of the film.
Film Feeder	- Feeds and grips the film during wrapping. - Feeds the film using the count photo sensor according to the programmed tray length. It also grips the film with the side and center clamps to stretch the film during wrapping.
Set Roller	- Sets the film into the film feeder. - To set the film, lift the set roller, place the film onto the set roller with both hands so that it sticks to the feeder belt, and close the set roller. - **Film Grip:** Holds the film already set onto the feed belt when in standby. - **Film Up/down:** Raises the end of the film off the feed belt after it has been gripped. - **Cut-off belt:** Cuts the film along the perforated line. - Cuts off the film from the feeder belt, and keeps it away from the belt during film centering.

Feeder Roller	- Joined via a clutch to the feeder drive, this roller sends the film to the feeder belt. It's stopped by a brake.
Cutter	- The cutter makes a perforation in the film for the appropriate size. - It is stopped by the brake.
Film Holder	- Sets the appropriate film. - In the 2 roll model, film can be set on the left and right hand sides. - For the 1 roll model, film can be set on the right.
Heater	- Seals the film underneath the tray after it is wrapped. - The heater is used at approximately 120°C. Special caution needs to be-taken with the temperature setting for polyethylene films.
Printer	- Prints out labels (Auto: 60 (W) × 85mm (H), Manual: 60 (W) × 120mm (H)) in the format chosen.
Label Applicator	- Holds labels using a suction plate, and applies the label to trays in accordance with the applicator timing signal. The amount of movement of the arm can be adjusted to fit the volume in trays.
Label Applicator Mover	- Adjusts the label position depending on the length of the tray. - It moves left and right to the position (1 to 12) programmed for that tray.
Control Console	- Operation panel (stroke key) contains numbers, units, fixed price, call print, tare, and delete keys. The box contains the boards (P-850 and P-851) - It has a connection to the scale, wrapper, and printer etc. - The LCD (touch panel) is used for display and data entry at the normal screen, setting mode, program mode, total mode, subtraction mode, etc.
Power Supply Unit	- Contains the power supply and boards (P-857, P-858A, P-858B, P-858C) - P-857 : Wrapper CPU board (ROM) - P-858A : Driver board - P-858B : Driver board (mainly right hand) - P-858C : Driver board (mainly left hand) - 24V power supply - Stepping driver (ROM) - Electromagnetic Contacter : Thermal Relay
Film Roll Unit	- Helps film feeding actively by driving film roll. - The film roll drive is synchronized with feeder drive.

1.7 STICKERS

1.7.1 WARNING SYMBOLS

This machine is manufactured for use according to proper procedures by qualified service personnel and only for the purposes described in this manual.

The warning symbols in this manual and warning stickers affixed to the machine itself are divided into three categories, depending on the level of danger, or seriousness of potential injury. The definition of each of these warnings and precautions is shown below. Failure to heed these warnings and precautions may result in bodily injury or damage to the machine.

Indicates information that, if not heeded, is likely to result in loss of life or serious injury.

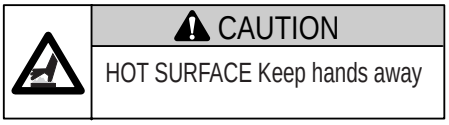
Indicates information that, if not heeded, could possibly result in loss of life or serious injury.

Indicates information that, if not heeded, could result in relatively serious or minor injury, damage to the machine, or faulty operation.

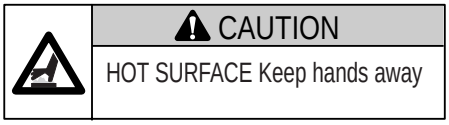
1.7.2 STICKER DEFINITIONS

Warning stickers are affixed to the machine to warn operators of possible dangers.

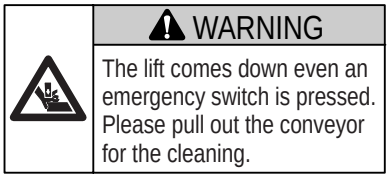
This sticker indicates that the main power should be disconnected when performing any type of internal maintenance or service on the machine.



This sticker indicates that hands should be kept away from hot surfaces.



This sticker indicates that the emergency stop button should always be pressed before servicing the machine internally.



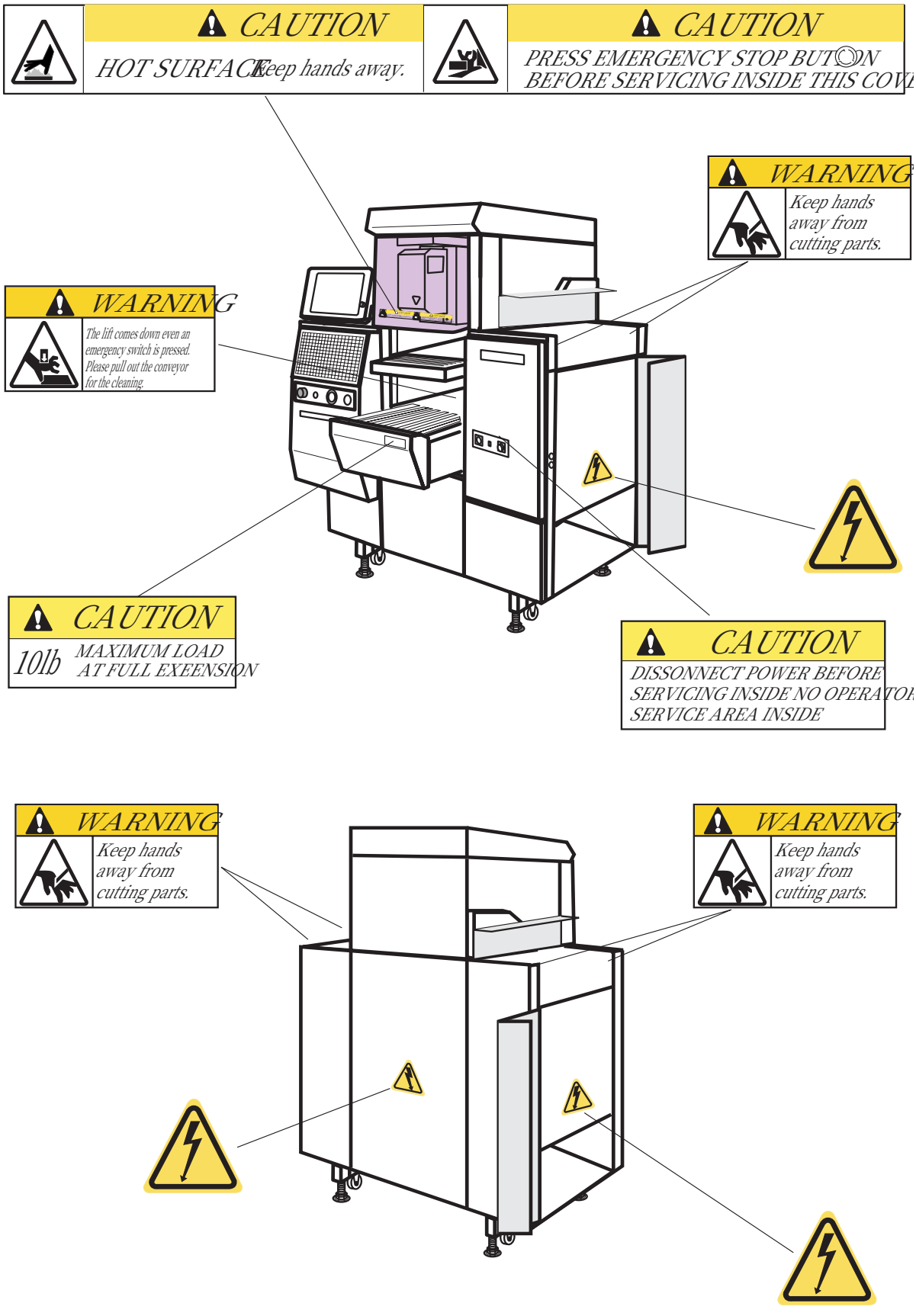
This sticker indicates that there is a danger hands may get caught when the lift comes down, even after the emergency switch has been pressed.

This sticker indicates that the maximum load at full extension should not exceed 10 lbs on the infeed conveyor cover.

This sticker indicates that there is a danger of electric shock on the power supply unit cover.

This sticker is placed on parts where there is a danger of the operator being cut by a cutting mechanism such as the cutter. Always press the emergency stop button before starting work near any cutting mechanism.

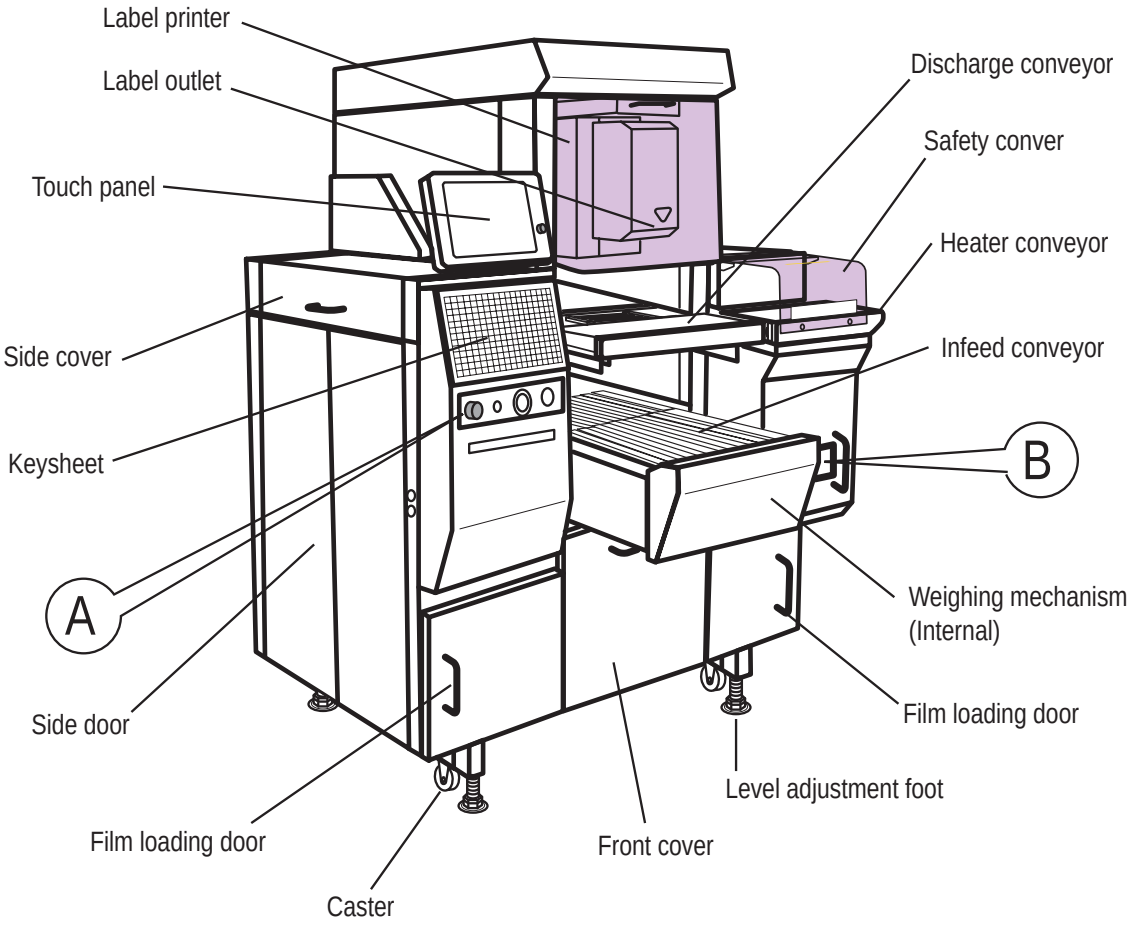
1.7.3 STICKER PLACEMENT

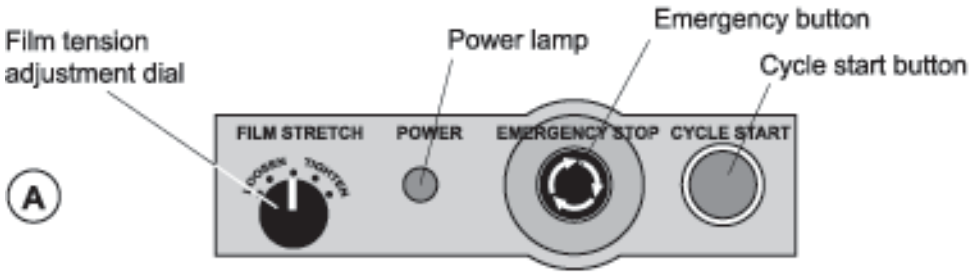


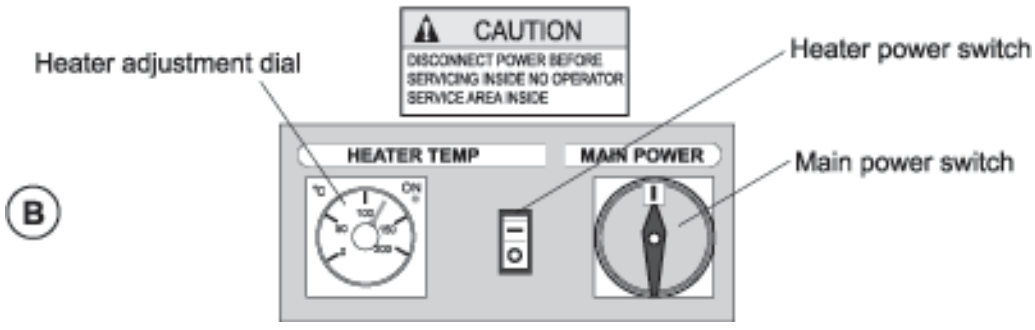
Chapter 2

OMNi-3000ST OVERVIEW

2.1 APPEARANCE



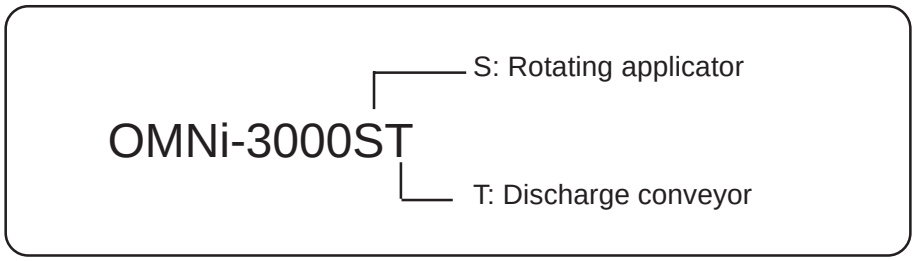




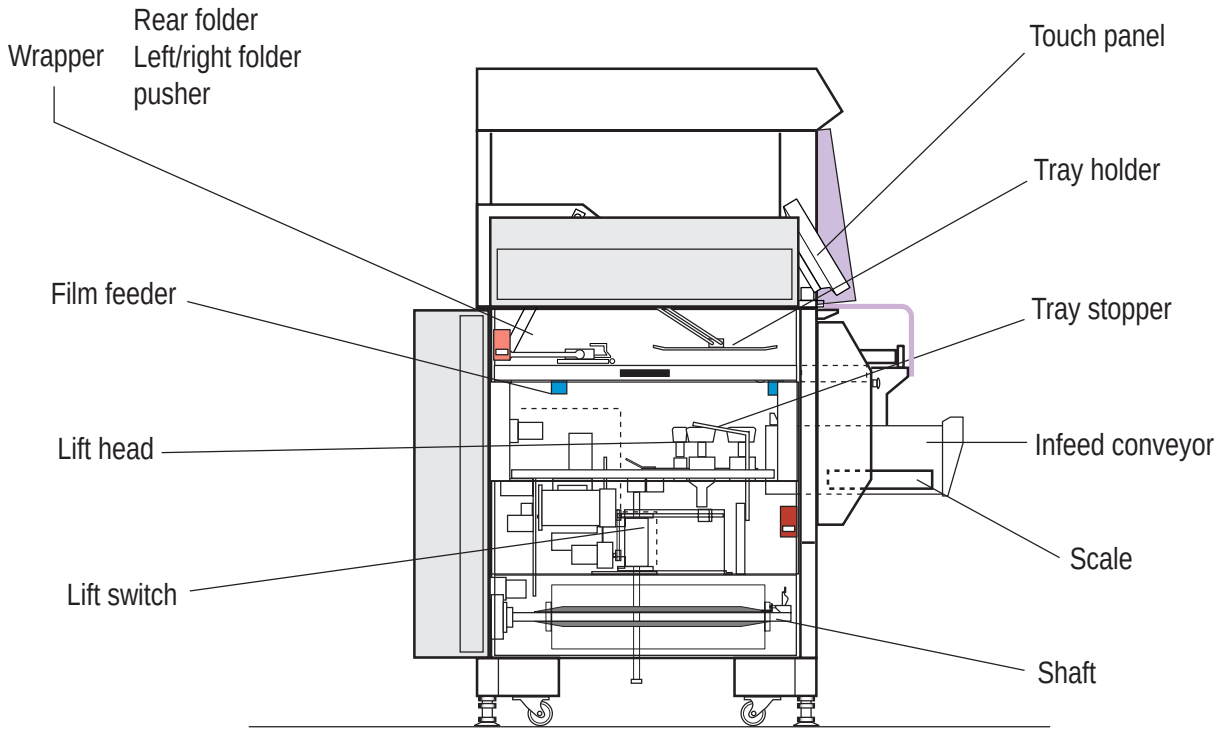
2.2 BASIC SPECIFICATIONS

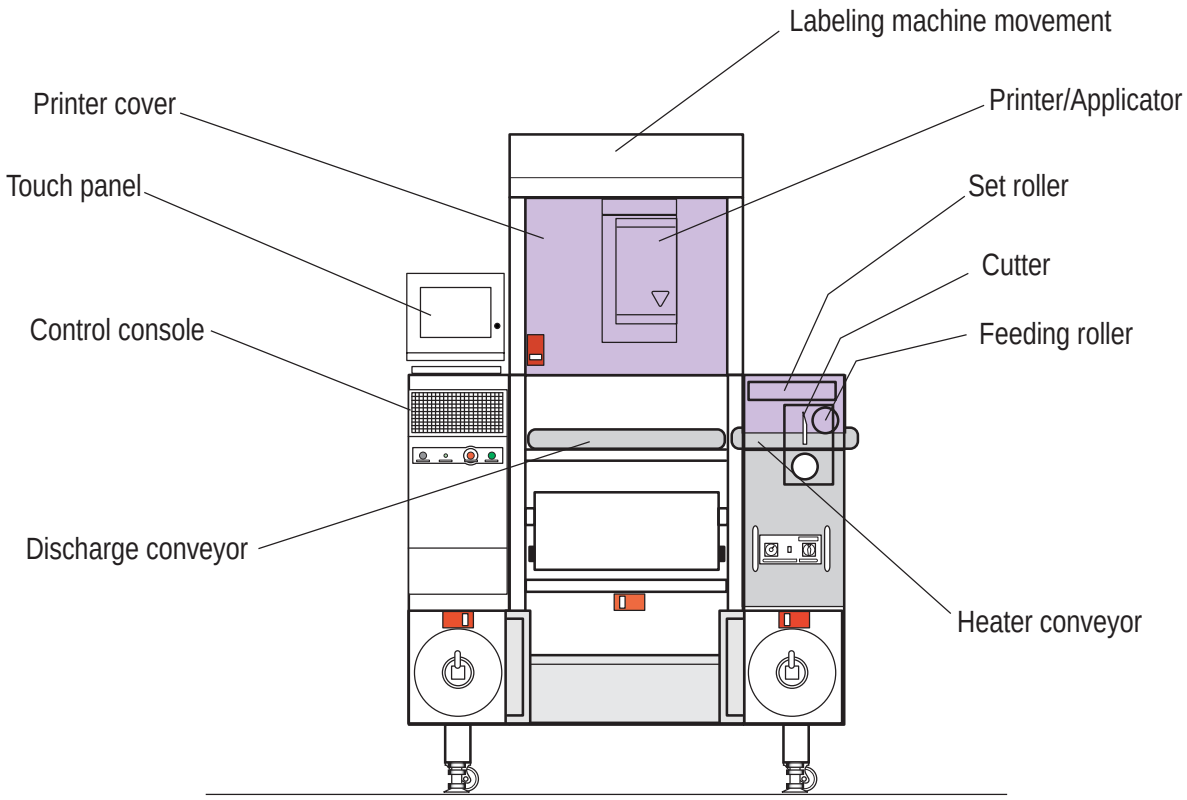
Scale	Weighing capacity	30 lb.
	Wrapping capacity	15 lb.
	Accuracy	1/3000
	Minimum graduation	0.01 lb. (Single range)
Printer	Thermal head	60 mm, 7.4 dot/mm
	Printing speed	85 mm/sec.
	Printing size	Auto: 64 mm (W) × 85 mm (H) Manual: 64 mm (W) × 120 mm (H)
	Font style	Reverse, Bold, Bold Reverse, Underline, Ruled line
Control console	Display method	9.4 inch analog touch panel
	Preset keys	72 × 2 keys
	Function keys	48 keys
	Number of programs	Up to approx. 3000 (when production total is not performed)
Wrapper	Wrapping speed	Max. 30 packs/min. (190 × 100mm tray)
	Wrapping size	130 to 410 mm (W) : 5.1 to 16.1 inch 130 to 260 mm (D) : 5.1 to 10.2 inch 20 to 150 mm (H) : 0.8 to 5.9 inch
	Film size	350 to 610 mm: 13.8 to 24.0 inch
	Film materia	Poly orephine / vinyl chloride
Power supply		3-phase 208 (220/240) VAC, 60Hz
Auto discharge conveyor	Discharge conveyor	Available
	Heater conveyor	Available

Note 1: Wrapping conditions listed in the above specifications may differ depending on tray shape or weight.
2: Specifications are subject to change without prior notice.

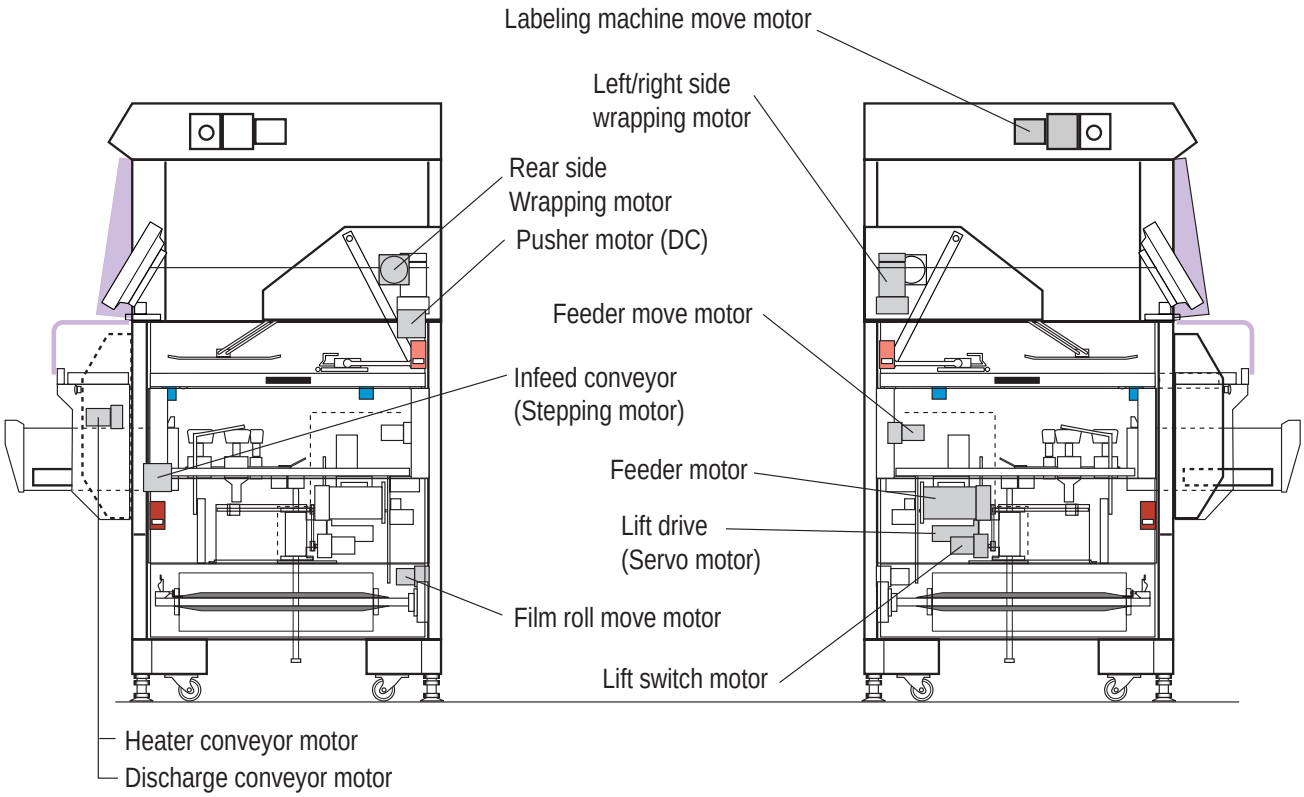


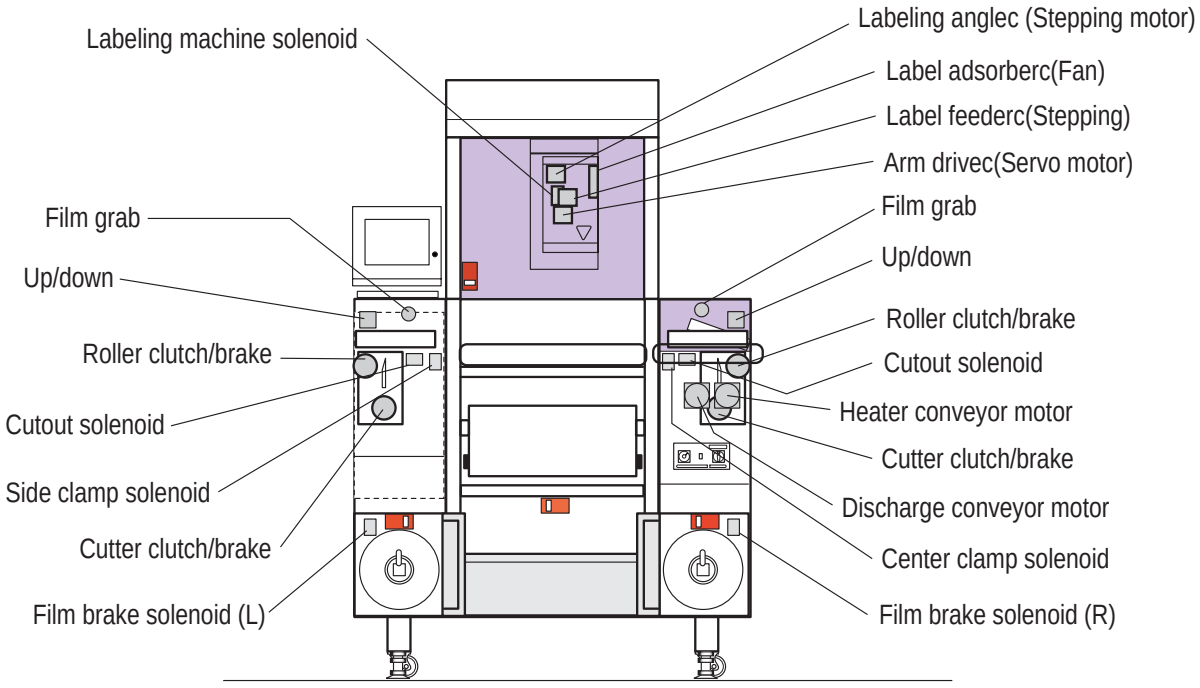
2.3 NAME OF EACH UNIT



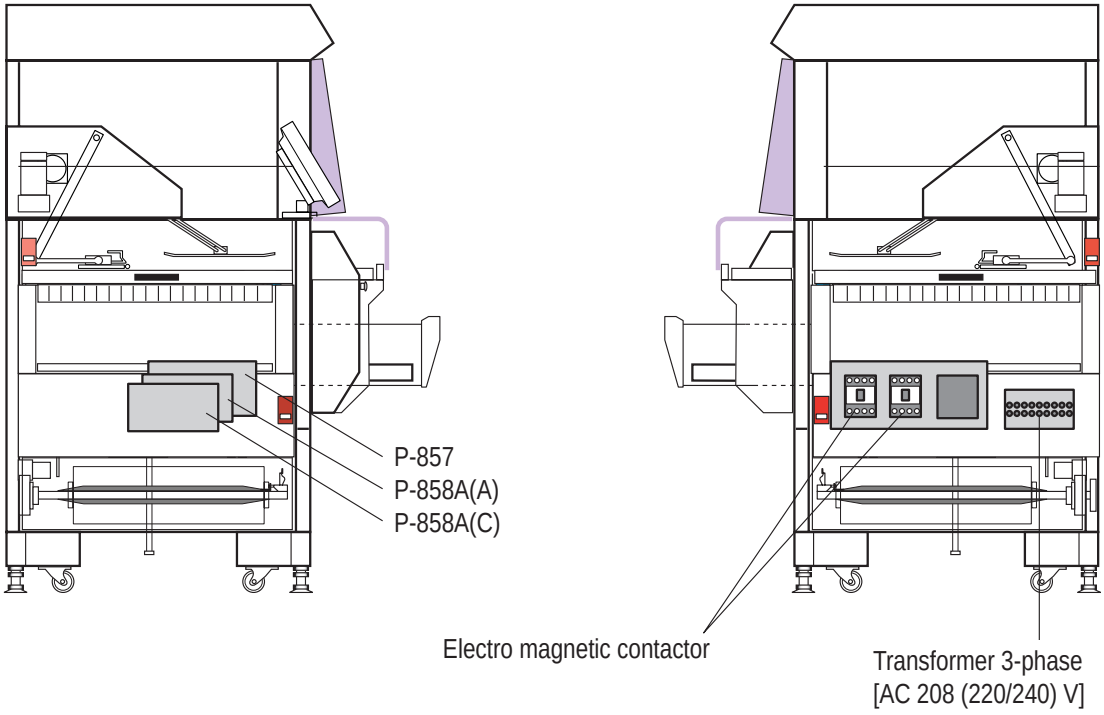


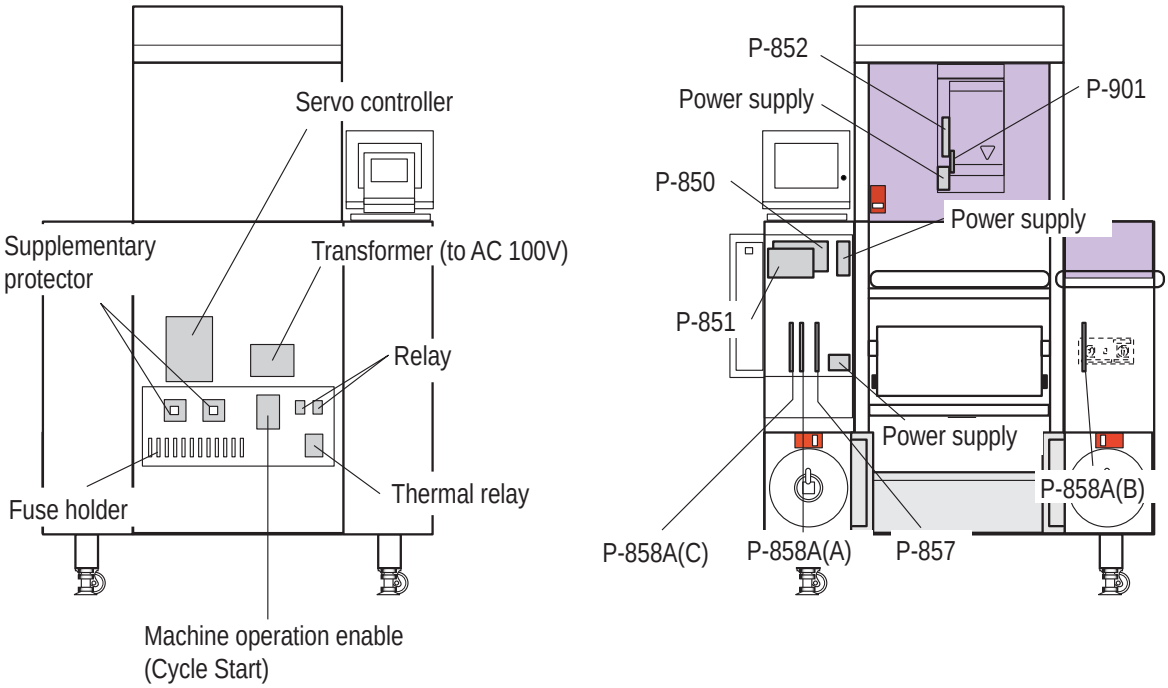
2.4 NAME OF EACH MOTOR





2.5 NAME OF EACH POWER SUPPLY





2.6 FUNCTION OF EACH UNIT

Infeed Conveyor	- Transports the tray to the lift heads. - Contains the scale and is driven by the stepping motor after the tray is weighed. The motor drives a chain containing four claws which push the tray. The chain stops when it passes the reference position sensor.
Scale	- Weighs a maximum capacity of up to 30lb 0.01lb (from 15lb up to 30lb).
Lift Drive	- Lifts the tray vertically up to the wrapper unit. - The servo controller receives the activating signal and is started by the controller. The lift drive utilizes two different movements: “Up/down for wrapping” and “Up/down for switching between large and small lift”.
Lift Heads	- Transports trays and tilt to facilitate the wrapping action. - There are 10 heads, out of which three sliding heads are used depending on the tray size.
Lift Switch	- Moves the lever to the appropriate size using a servo motor. - Switches the lift heads from “large to small” and “small to large”.
Rear Wrapping Plates	- Wraps the film underneath the rear of the tray. - The motor starts with the wrapping start timing. - The wrapping plate moves forward and pushes the film underneath the rear of the tray.
Left/Right Wrapping Plates	- Wraps the film over the sides of the tray. - The motor starts with the wrapping start timing. - The left and right wrapping plates slide in and fold the film underneath the tray.
Pusher	- Wraps the film under the front of the tray and pushes the tray out. - The motor starts with the wrapping start timing. - The pusher comes forward, folding the film underneath the tray in time with the feeder clamp.
Feeder Drive	- Drives the feed belt, feed roller and cutter. - When the motor moves, the front and back feeders turn the number of times specified by the encoder. The feed roller and cutter switch on and off using a clutch and brake.
Feeder Mover	- Moves the rear feeder depending on the size of the film using a motor. - For 2 and 3 roll types, the sensors detect the width of each film and moves to the film width. - For the 1 roll type, the feeder mover moves to the where the sensor detects the end of the film.
Film Feeder	- Feeds and grips the film during wrapping. - Feeds the film using the count photo sensor according to the programmed tray length. It also grips the film with the side and center clamps to stretch the film during wrapping.
Set Roller	- Sets the film into the film feeder. - To set the film, lift the set roller, place the film onto the set roller with both hands so that it sticks to the feeder belt, and close the set roller. - **Film Grip:** Holds the film already set onto the feed belt when in standby. - **Film Up/down:** Raises the end of the film off the feed belt after it has been gripped. - **Cut-off belt:** Cuts the film along the perforated line. - Cuts off the film from the feeder belt, and keeps it away from the belt during film centering.

Feeder Roller	- Joined via a clutch to the feeder drive, this roller sends the film to the feeder belt. It's stopped by a brake.
Cutter	- The cutter makes a perforation in the film for the appropriate size. - It is stopped by the brake.
Film Holder	- Sets the appropriate film. - In the 2 roll model, film can be set on the left and right hand sides. - For the 1 roll model, film can be set on the right.
Heater	- Seals the film underneath the tray after it is wrapped. - The heater is used at approximately 120°C. Special caution needs to be-taken with the temperature setting for polyethylene films.
Printer	- Prints out labels (Auto: 60 (W) × 85mm (H), Manual: 60 (W) × 120mm (H)) in the format chosen.
Label Applicator	- Holds labels using a suction plate, and applies the label to trays in accordance with the applicator timing signal. The amount of movement of the arm can be adjusted to fit the volume in trays.
Label Applicator Mover	- Adjusts the label position depending on the length of the tray. - It moves left and right to the position (1 to 12) programmed for that tray.
Control Console	- Operation panel (stroke key) contains numbers, units, fixed price, call print, tare, and delete keys. The box contains the boards (P-850 and P-851) - It has a connection to the scale, wrapper, and printer etc. - The LCD (touch panel) is used for display and data entry at the normal screen, setting mode, program mode, total mode, subtraction mode, etc.
Power Supply Unit	- Contains the power supply and boards (P-857, P-858A, P-858B, P-858C) - P-857 : Wrapper CPU board (ROM) - P-858A : Driver board - P-858B : Driver board (mainly right hand) - P-858C : Driver board (mainly left hand) - 24V power supply - Stepping driver (ROM) - Electromagnetic Contacter : Thermal Relay
Film Roll Unit	- Helps film feeding actively by driving film roll. - The film roll drive is synchronized with feeder drive.
Discharge Conveyor	- Conveyor that automatically feeds a tray discharged from the wrapper to the stock conveyor. The conveyor unit consists of a Discharge Conveyor and a Heater Conveyor. **Discharge Conveyor** A conveyor that discharges a tray discharged from the wrapper in the 90° right direction. **Heater Conveyor** A conveyor that temporarily stops a tray ejected from the discharge conveyor wrapper, seals a film at the tray bottom, and ejects it after a given time.

2.7 STICKERS

2.7.1 WARNING SYMBOLS

This machine is manufactured for use according to proper procedures by qualified service personnel and only for the purposes described in this manual.

The warning symbols in this manual and warning stickers affixed to the machine itself are divided into three categories, depending on the level of danger, or seriousness of potential injury. The definition of each of these warnings and precautions is shown below. Failure to heed these warnings and precautions may result in bodily injury or damage to the machine.

Indicates information that, if not heeded, is likely to result in loss of life or serious injury.

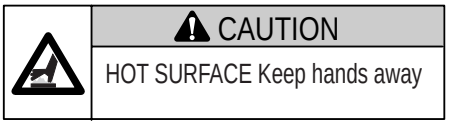
Indicates information that, if not heeded, could possibly result in loss of life or serious injury.

Indicates information that, if not heeded, could result in relatively serious or minor injury, damage to the machine, or faulty operation.

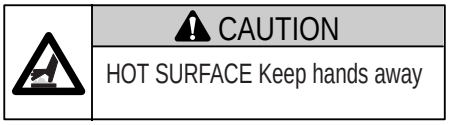
2.7.2 STICKER DEFINITIONS

Warning stickers are affixed to the machine to warn operators of possible dangers.

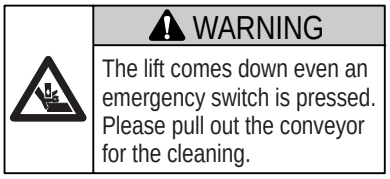
This sticker indicates that the main power should be disconnected when performing any type of internal maintenance or service on the machine.



This sticker indicates that hands should be kept away from hot surfaces.



This sticker indicates that the emergency stop button should always be pressed before servicing the machine internally.



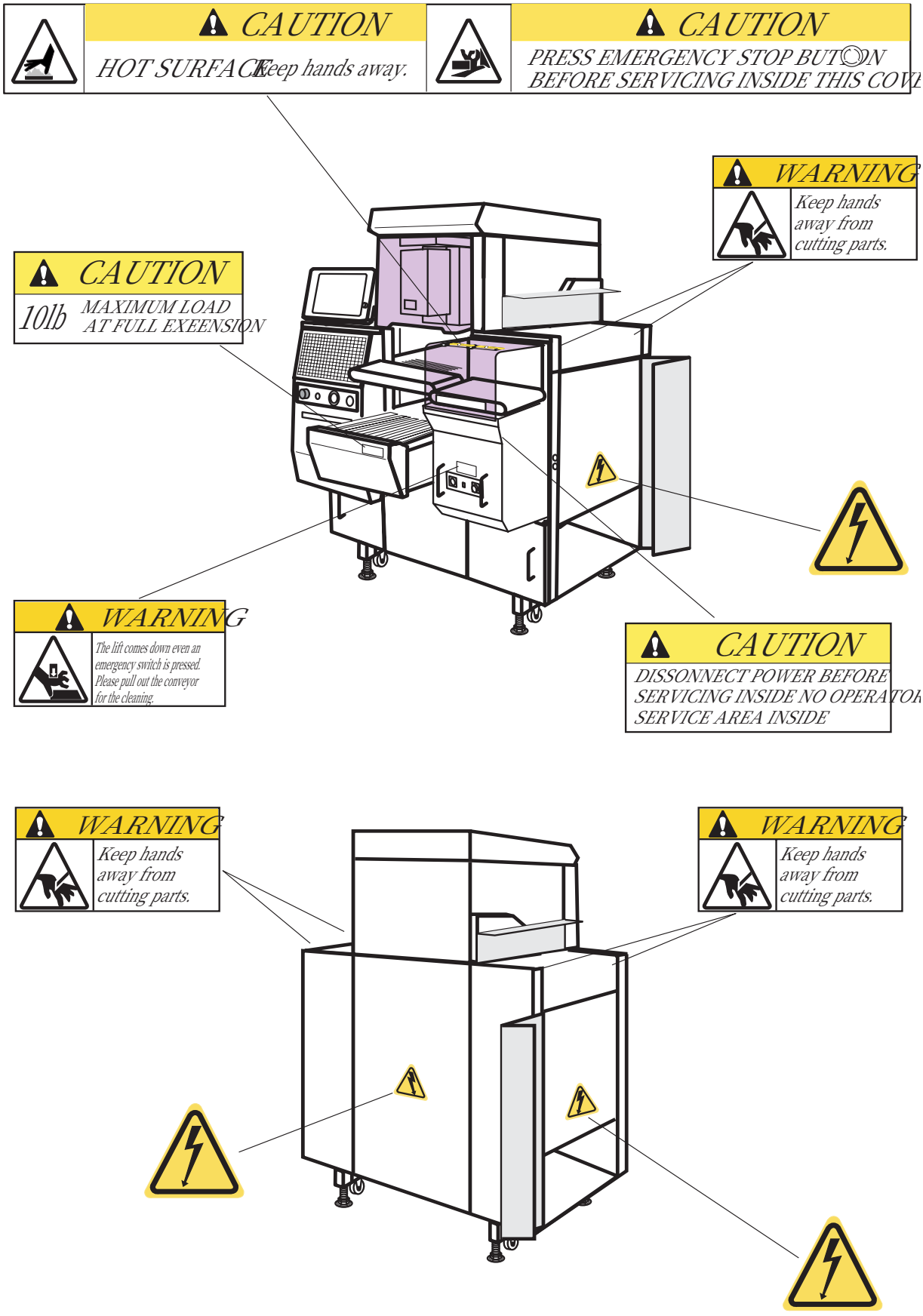
This sticker indicates that there is a danger hands may get caught when the lift comes down, even after the emergency switch has been pressed.

This sticker indicates that the maximum load at full extension should not exceed 10 lbs on the infeed conveyor cover.

This sticker indicates that there is a danger of electric shock on the power supply unit cover.

This sticker is placed on parts where there is a danger of the operator being cut by a cutting mechanism such as the cutter. Always press the emergency stop button before starting work near any cutting mechanism.

2.7.3 STICKER PLACEMENT


CAUTION
HOT SURFACE Keep hands away.
CAUTION
PRESS EMERGENCY STOP BUTTON
BEFORE SERVICING INSIDE THIS COVE
WARNING
Keep hands away from cutting parts.
CAUTION
10lb MAXIMUM LOAD AT FULL EXEENSION
WARNING
The lift comes down even an emergency switch is pressed. Please pull out the conveyor for the cleaning.
CAUTION
DISSONNECT POWER BEFORE SERVICING INSIDE NO OPERATOR SERVICE AREA INSIDE
WARNING
Keep hands away from cutting parts.
WARNING
Keep hands away from cutting parts.

Chapter 3

INSTALLATION

3.1 INSTALLATION PRECAUTIONS

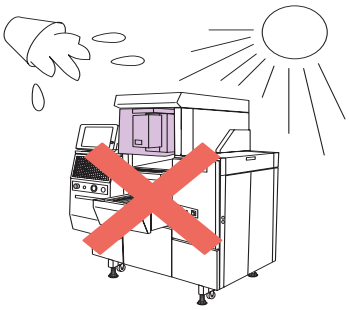
3.1.1 NECESSARY TOOLS

- OMNi-3000ST Service Manual (this manual)
- Phillips head screwdriver
- Adjustable wrench (more than 30mm jaw extension)
- Open-ended wrench (30mm)
- Allen wrench key set
- Box wrench (7, 8, 10 mm)
- Electrician's pliers
- Level (200 to 250mm)

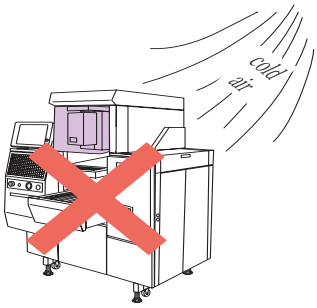
Note: Use instrument with precision greater than 2/1000.
IF-21 FD (3.5 inch floppy disk)

3.1.2 PROHIBITED LOCATIONS

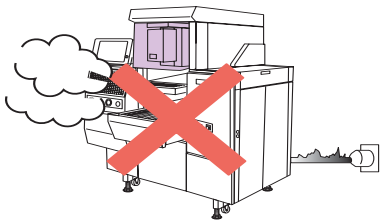
- Areas subject to high temperatures or high humidity
- Areas exposed to direct sunlight
- Areas where water or other liquids are easily spilled on the machine



- Areas subject to excessive vibration or unstable foundations
- Areas exposed to direct cold air
- Areas subject to low temperatures

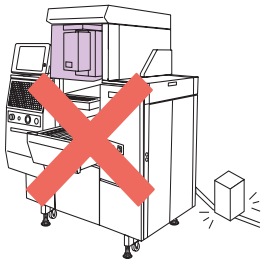


- Areas subject to a lot of dust or dirt
- Areas with large voltage fluctuations



3.1.3 POWER SUPPLY

- Only use 3 phase 208 (220/240) V AC [Default=208]
- Use a dedicated power source.
  (Voltage fluctuation can cause the machine operation to malfunction)
- Do not stand on, or place heavy objects on the power cord
  (If the cord is damaged and still used, it may cause an accident or other problems)

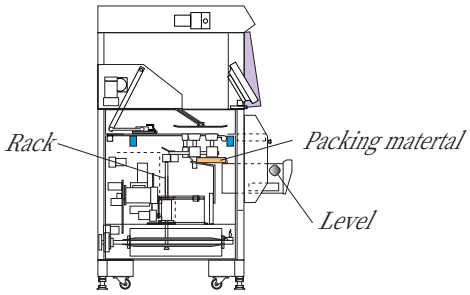


3.1.4 PACKING MATERIALS

- When transporting the machine, ensure that the packing materials located underneath the lift head are in place.

  Note: If the packing materials are not in place during transportation, and the machine collides with any protruding objets, this may case the lift to fall causing damage to the rack.

- After set up is complete, remove the packing materials.

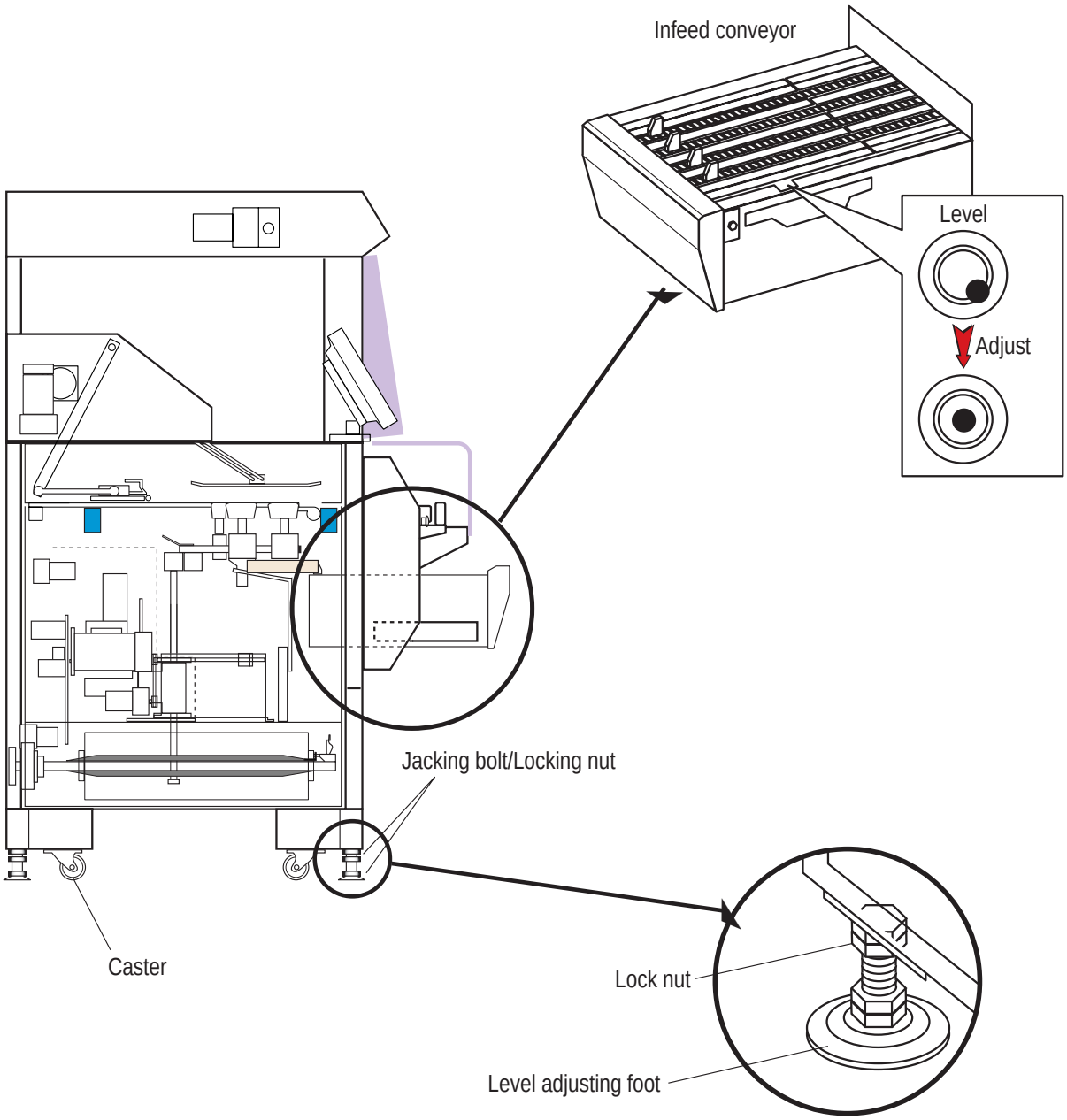


3.1.5 WORK CLOTHES

- Avoid wearing loose clothing that might be caught in the machine.
- Shirt sleeves should be kept buttoned or rolled securely above the elbows.
- To keep fingers or hands being caught in the conveyor gears or other moving parts, do not wear gloves.
- Ties should be tucked inside shirts.

3.2 LEVEL ADJUSTMENT

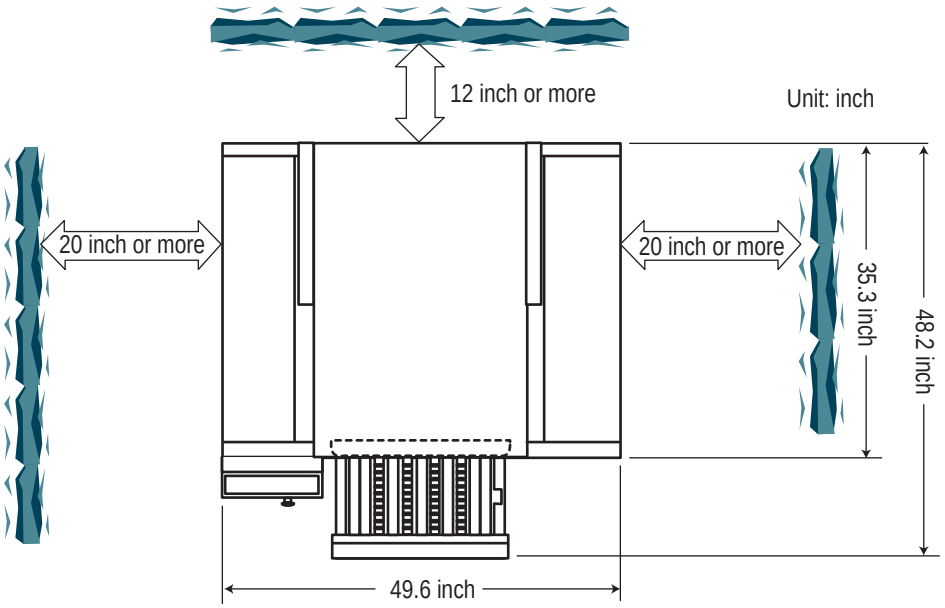
- **Do not lift the level adjusting feet off the floor after installation.**
  The machine has casters installed that may cause it to move during operation and lower wrapper speeds.
- **Always ensure that the machine is level.**
  If the level is not centered, weighing will not be accurate, and wrapping is not performed well.
  Adjust the level adjusting feet until the bubble inside the level indicator is centered.



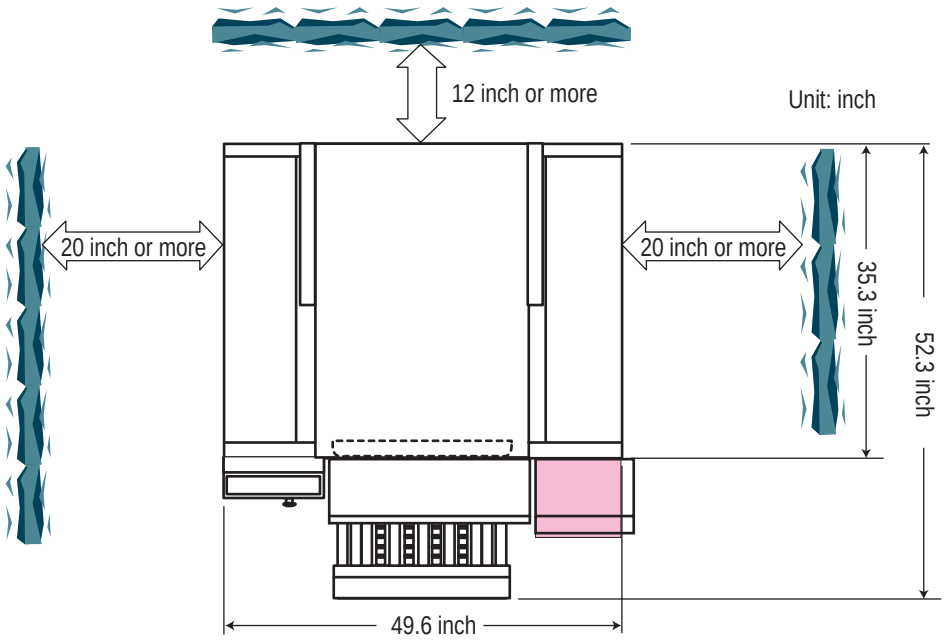
3.3 INSTALLATION SPACE

Allow ample space on either side of the machine to ensure easy access for maintenance.

OMNi-3000S

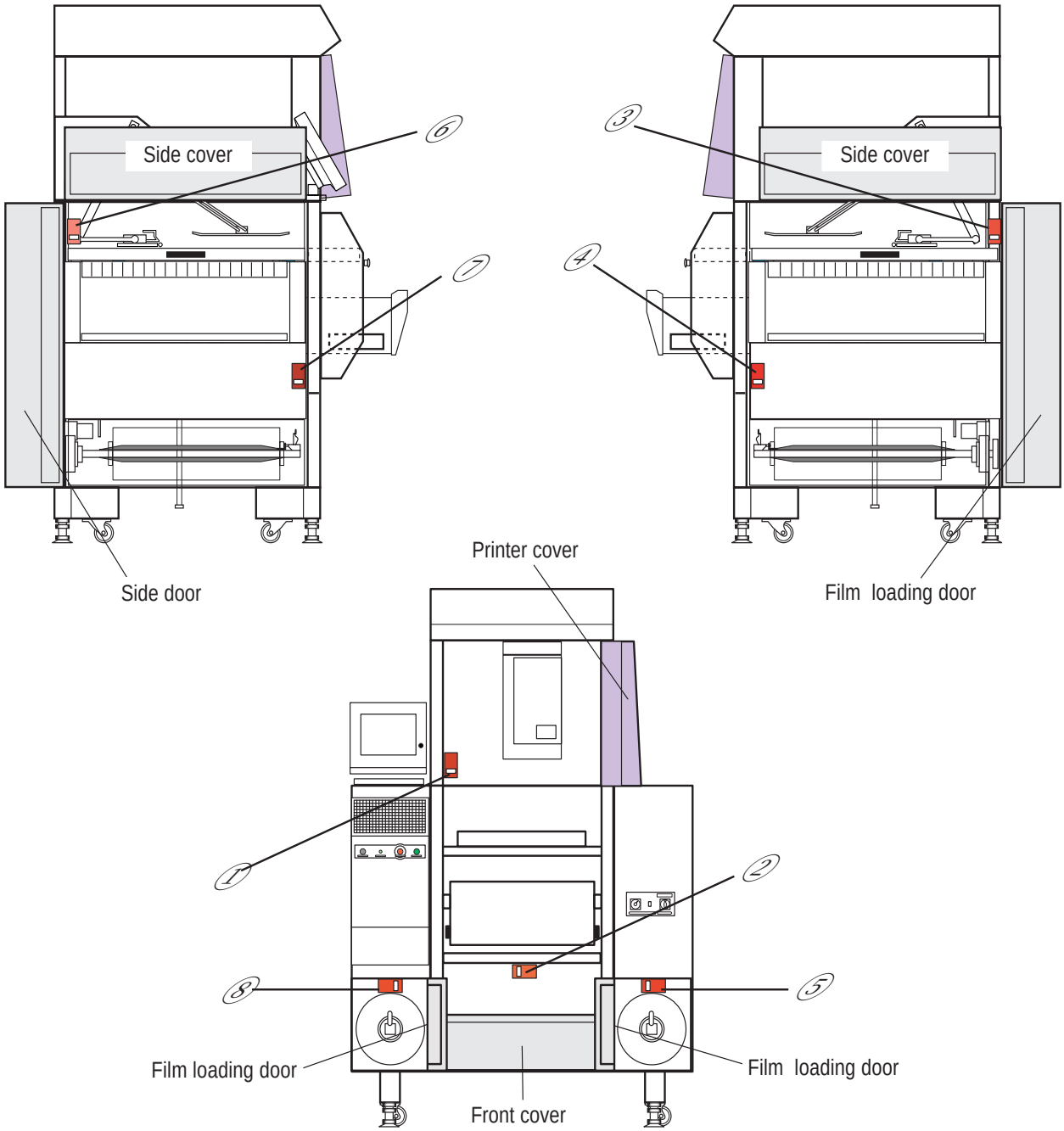


OMNi-3000ST



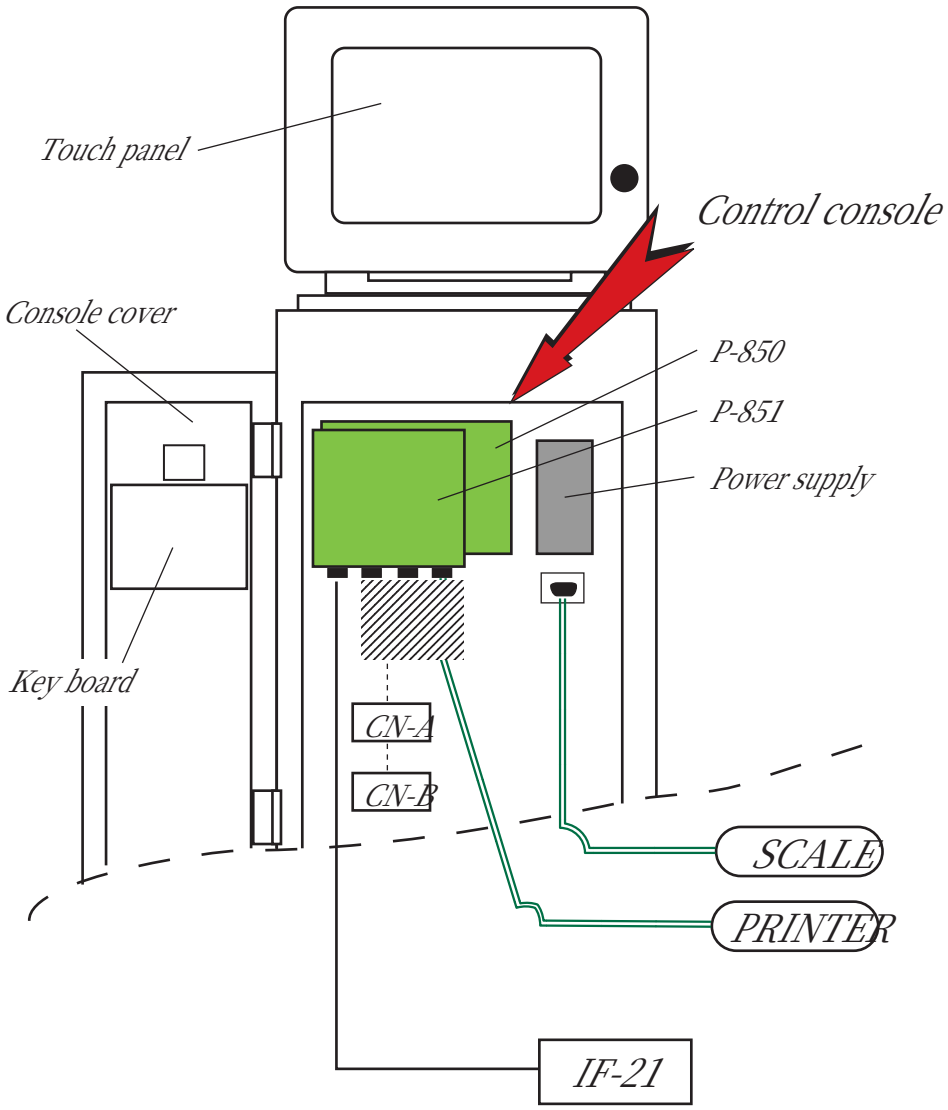
3.4 SAFETY SWITCH

- Safety switches are installed at door opening part to sedure safety when machine cleaning.
- Safety switche positions are same for [S type] and [ST type].



3.5 CABLE CONNECTION

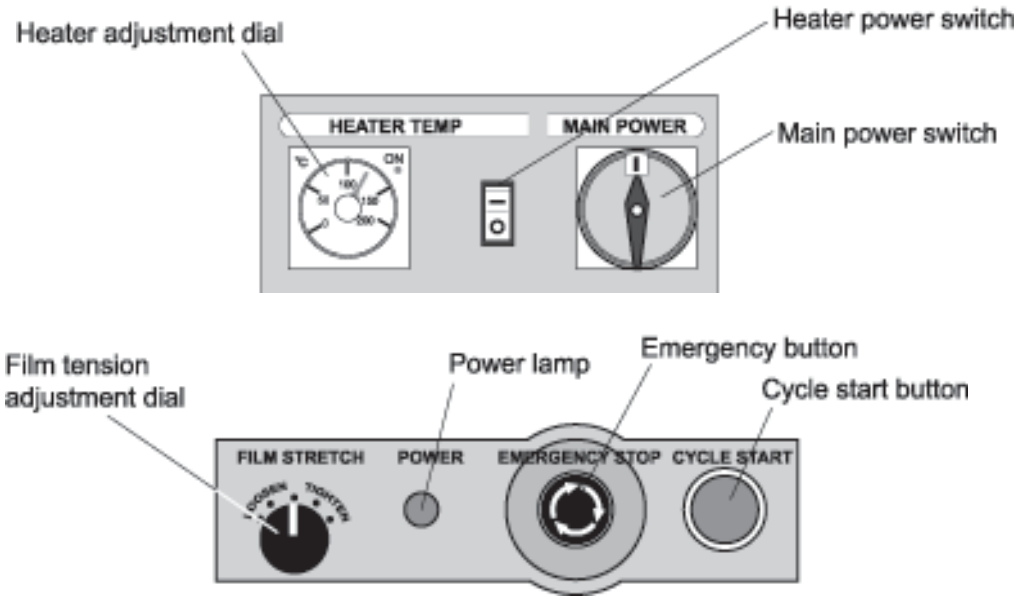
- Connect the scale cable to the “SCALE” port on the rear side of the control console unit.
- Ensure that all other cables are properly connected.
  (CN-A, PRINTER, PRINTER PWR, SWITCH ON)
- Connect the power cord to the wall socket.



3.6 MAIN POWER ON/OFF

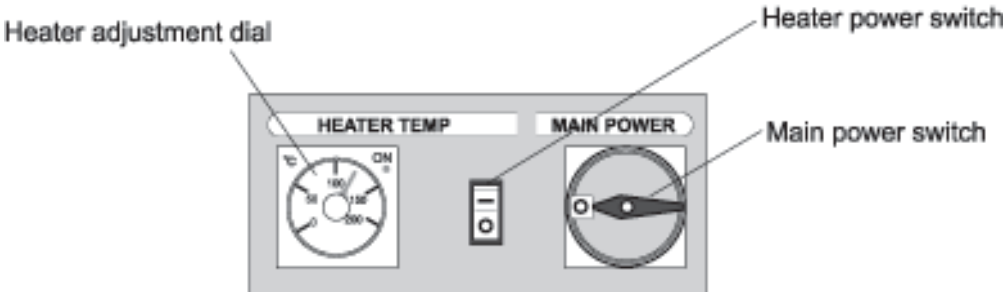
3.6.1 POWER ON

- Turn the Power Switch Lever clockwise.
- Before start operation, press the Cycle Start Switch.



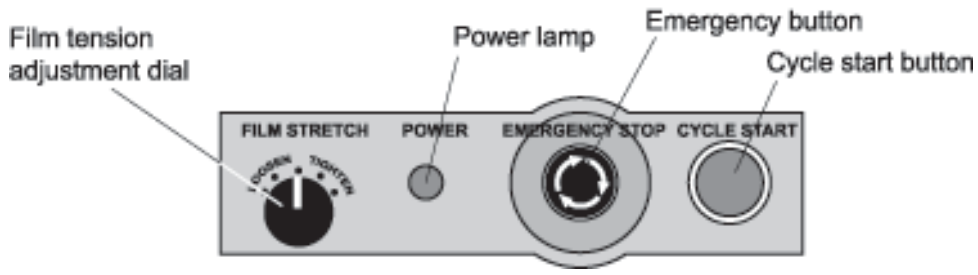
3.6.2 POWER OFF

Turn Power Switch Lever counter-clockwise.



3.6.3 EMERGENCY STOP BUTTON

- Press the EMERGENCY STOP button to stop the machine when emergency occur.
- When releasing emergency stop, turn the button clockwise.



3.7 MEMORY INITIALZATION

Hardware Test	Key check	Ten key check Preset key check Full keyboard check Touch panel adjustment	4 Carry out when delivered
	Communication check	I2NET1 loop-back test I2NET2 loop-back test I2NET1 RAM test I2NET2 RAM test	
	Scale data adjustment	A/D data Span data <?Zone?>	
	Thermal head adjustment	Head resistance value Peel sensor level Printing density setting Head travel distance	5 Carry out when delivered 0 Carry out when delivered
	ROM version	Console ROM Wrapper ROM Printer 1 ROM Printer 2 ROM Printer 3 ROM	
Memory Test	Initialize internal memory	RAM disk clear E2PROM initial data setting Test data setting	1 Carry out when delivered 2 Carry out when delivered 3 Carry out when delivered
	Initialize extemal	memory	
Peripheral Devices Test	Wrapper check	1: Sensor check 2: Wrapping (right) 3: Wrapping (left) 4: Lift motor 5: Film squeeze 6: Discharge motor 7: Infeed motor 8: Film feed (right) 9: Film feed (left) 10: Film feeder motor 11: Solenoid 12: Clutch brake 13: Applicator move 14: Lift change motor 15: Film roller change 16: Feeder jogging 17: Dischage conveyor	
	Wrapper settings	Lift upper position Lift home position Lift lower position	0 Carry out when delivered
	Printer Adustment	Original position Original speed	
File Control	Film check		
	Data save/load		6 Carry out when delivered
ROM Switch			0 Carry out when delivered

n Perform Communication Check

"OK" is displayed when check is finished. After finishing all communication check, press the **[MENU]** button on the screen to proceed to the next procedure.

n Perform Scale Adjustment

Check that the **"l"** (Stabilized signal) is displayed at the left bottom of the screen.

n Initialization

1. Put in test mode and initialize the memory

(For test mode, after turning on the power and the logo disappears, enter "495344")

- Press **[CLEAR]** and execute.
- Press **[INITIALIZE]** and execute.
- Press **[SETTING]** and execute.

2. Perform the following initializations before loading data

RAM disk clear	To clear RAM disk data, press the **[CLEAR]** button on the screen.
E2PROM initial data setting	To set the initial data, press the **[INITIALIZE]** button on the screen.
Test data setting	To set the test data, press the **[SET]** button on the screen.

Note: Before performing any initialization, ensure that the data has been backed up to floppy disk. For backing up data, perform the operation using the IF-21 peripheral device.

3. After clearing, set the "Thermal Head Settings" and "Touch Panel Adjustment"

- Thermal Head Settings
- Touch Panel Adjustment

4. Other Items to Check

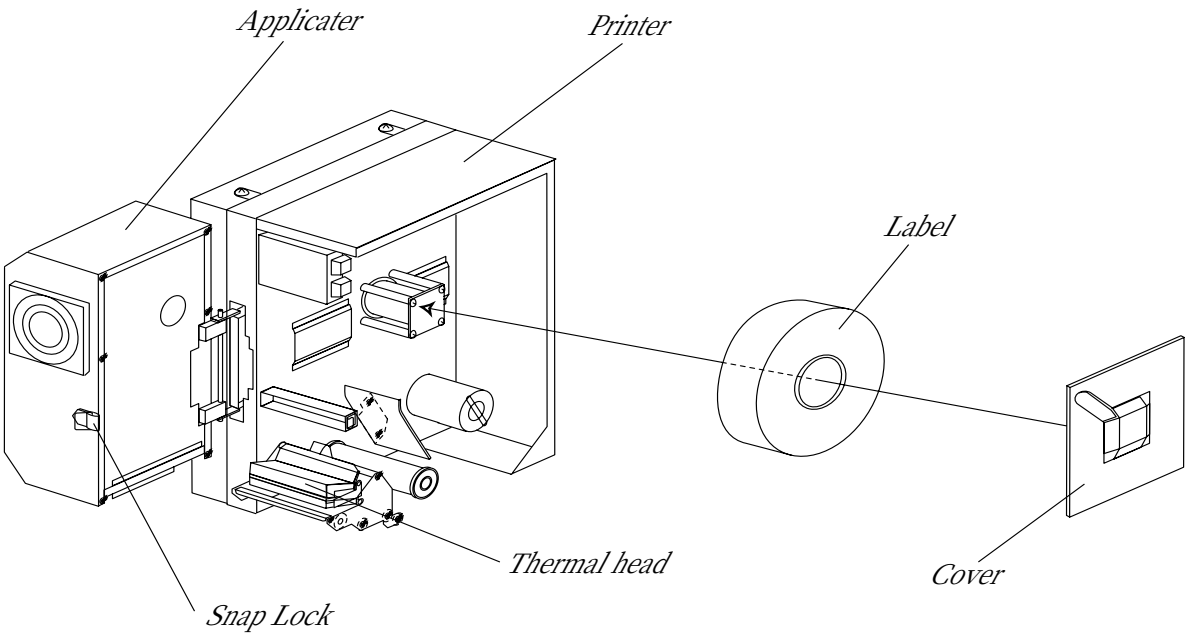
- Thermal head settings: Peel sensor level
- Wrapper settings: Lift home position
- ROM Switch

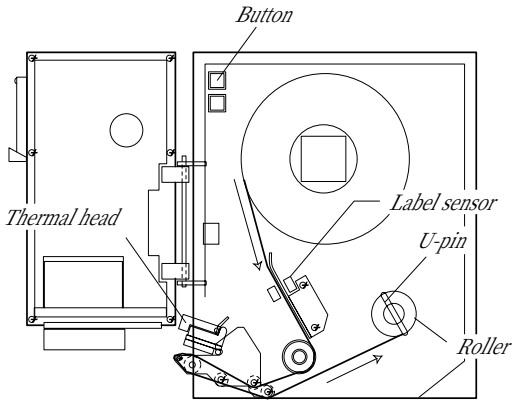
Note: When data is cleared, re-program the thermal head setting and touch panel adjustment.

3.8 LABEL SETTING

Install label roll

Release snap lock which is fixing printer and applicator, and release the applicator.
Push back open plate of thermal head.
Insert label roll into motor shaft, and put through the label paper. (See “How to put the put through label paper.” below.)
Cover the magnet cover on the center of label.





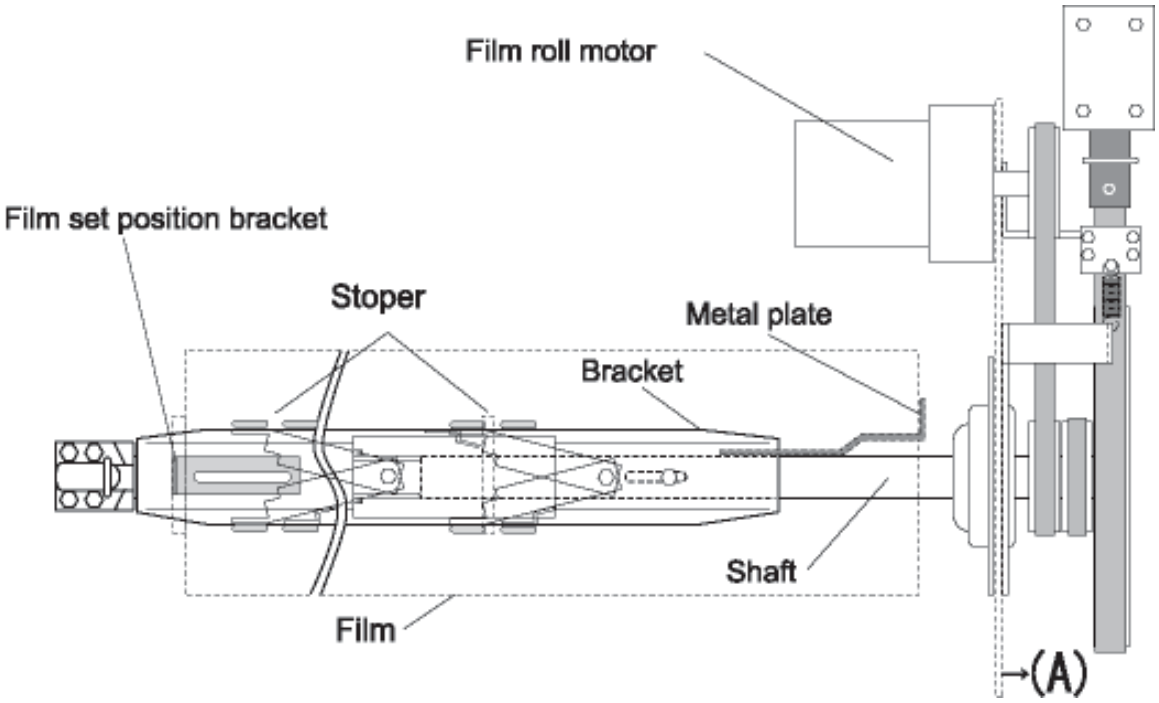
■ How to put through the label paper

- Pick up the U-pin and take off remaining label back paper on the roller.
- Insert new label roll and put through the label paper through Label Sensor (between print rubber roller and thermal head).
  Wind printer paper around Roller and fix by the U-pin.
- Make sure to close thermal head.
- Press “Feed Button” until new label appears.

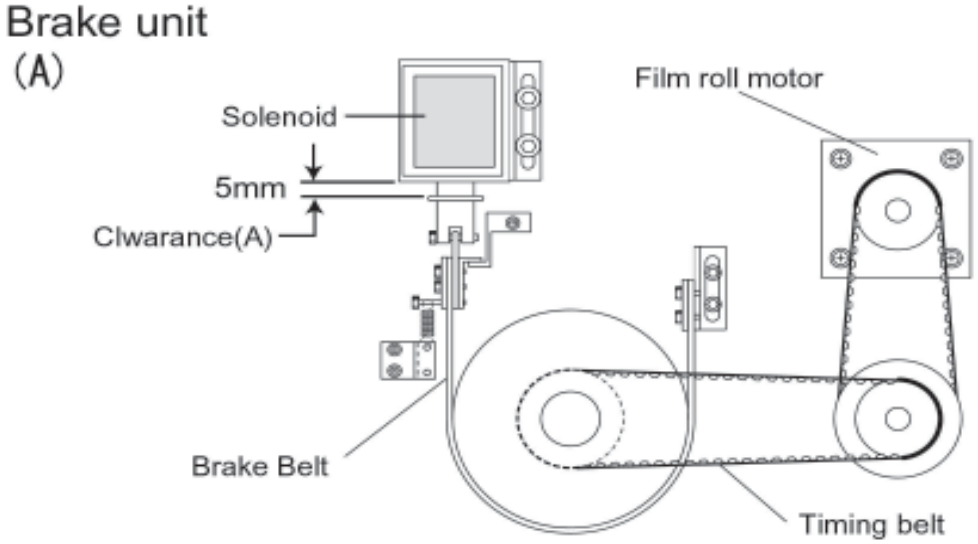
Note: Please make sure to put the label paper through label sensor.
Label printing position can be adjusted at “Label Format” on the display manu

3.9 FILM ROLL SETTING

To install the Film Roll to the rear frame of the machine, attach the metal plate as shown below using a tapped screw hole on the film roll shaft.
In this case, make sure that the front side film roll is on the film set position bracket. when unable to fasten using the screw hole located on top of the shaft, fasten the metal plate and bracket to the shaft using the 5mm screw on the front side.



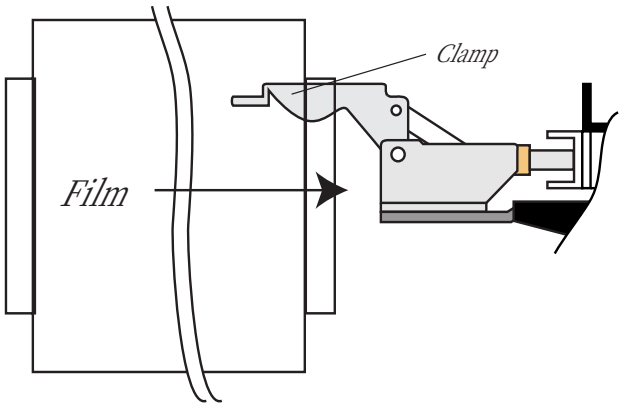
- The brake unit stops rotation of the film roll when film feeding stops.
  Adjust by moving the solenoid up and down using M5 bolts so as to be able to make a 5mm gap (A) when solenoid core is manually moved upwards.



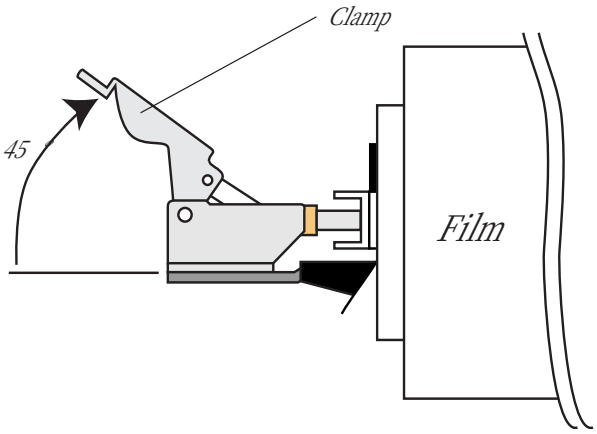
3.9.1 FILM SETTING

n How to set the film
Insert the film into film roll, and adjust the edge of film roller position at Metal Plate.
Pick up the clamp by finger as vertical.

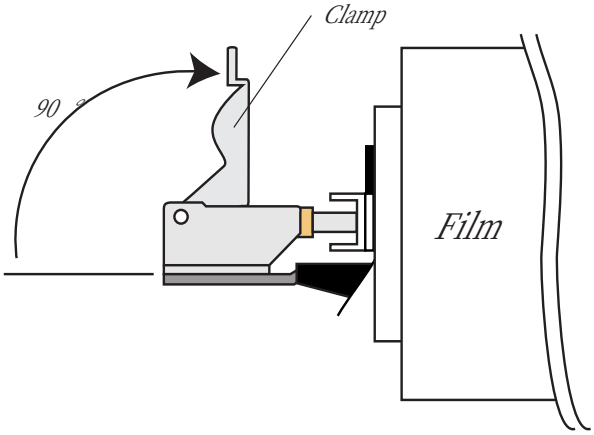
n It need to adjust film amount on the feeder belt.



1. Insert film into film roll until it hits Metal Plate.



2. Pick up clam. When it comes approx. 45 degree, it becomes heavy.
(Please make sure that it becomes heavy, so that it will be locked.)



3. When the clamp comes vertical, it must be felt lock response.

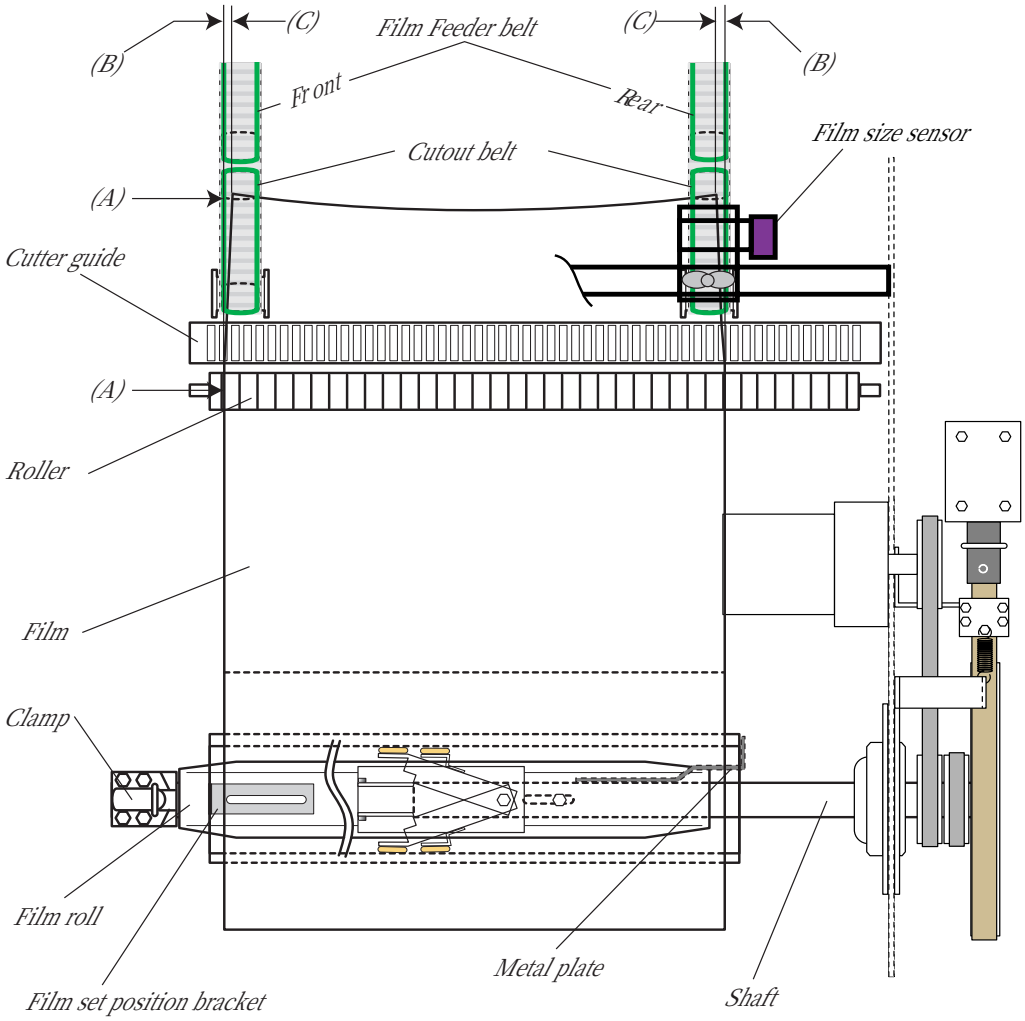
3.9.2 FILM POSITION ADJUSTMENT

1. After setting the film, push Film Set button, and feed film a few pieces.

2. Make sure that the film does not come over from the feeder belt edge line at front side (the line (A) to (B)). If it comes over, please adjust film roller position by releasing clamp, and feed film again to confirm the film does not come over.
   (Film edge should be at (C) line.)

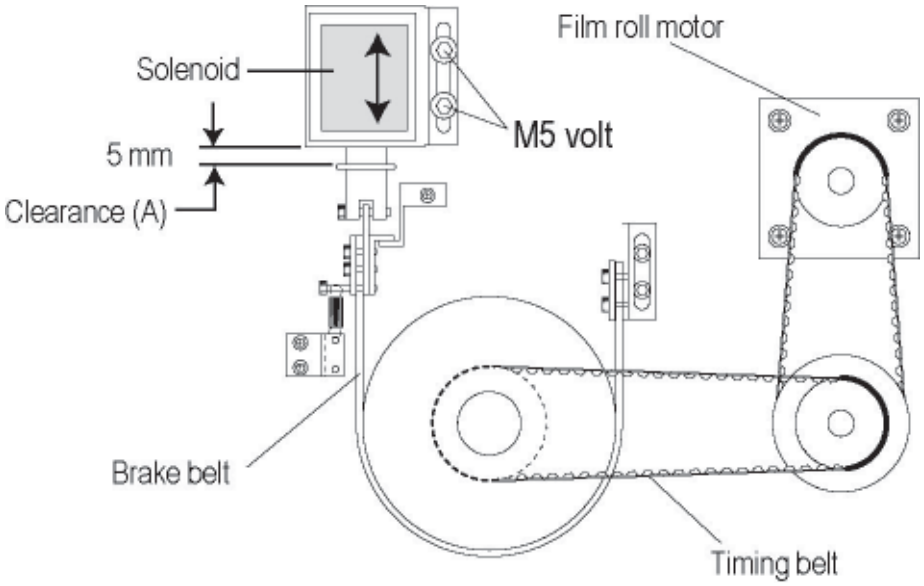
3. At the same time, please make sure if the film on the rear side feeder belt is proper.
   If the film comes over, loose wing bolt for the bracket of “Film size sensor”, and move the sensor bracket as required position.
   Press Film Set button in order to adjust rear side feeder position at Film size sensor, and feed film a few pieces to confirm the position.

Note: Film over wrapping amount should be same for front side and rear side.
After completion of film position adjusting, please make sure to fix the Metal plate and Film set position bracket at the edge of film paper roll.



3.9.3 BRAKE UNIT ADJUSTMENT

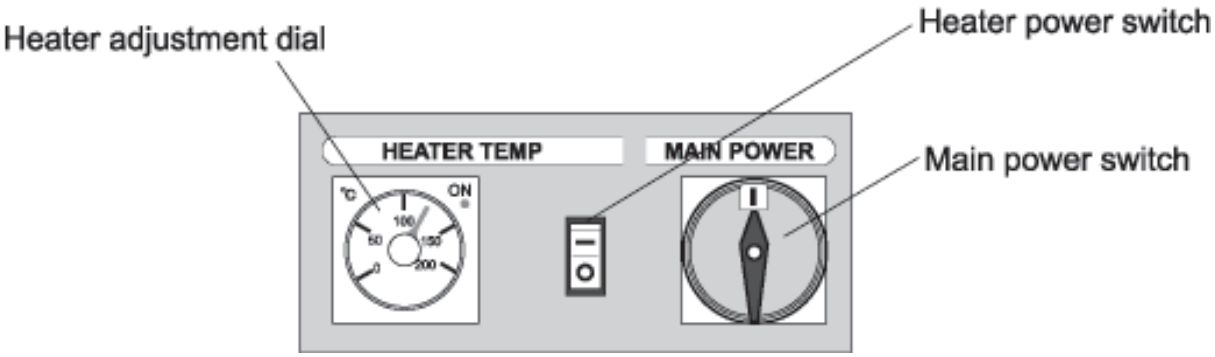
Brake unit should work to stop film roll over run by inertia.
The brake will activate by energize solenoid when film feed is stopped, and stop the rotation movement.



n How to adjust

Please move core of solenoid at upper direction by the hand. When it moves to upper edge, please adjust gap (A) as 5mm, by M5 bolt (it will adjust solenoid up and down).

3.10 HEATER SWITCH



Please make sure to turn on the Heater Power Switch approx. 30 minutes before start wrapping.

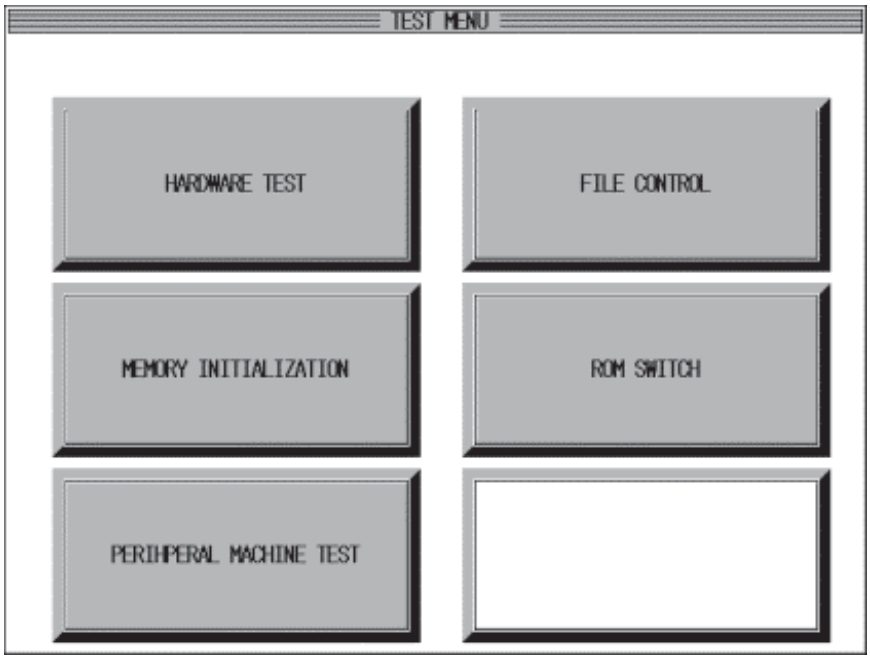
Setting of Heater Adjustment Dial
Set the temperature approx. 120 to 130 degree centigrade.

Chapter 4

TEST MODE

TEST MODE ENTRY

Turn on the power (breaker), and immediately after the ISHIDA logo is displayed on the screen (within approx. 3 seconds), enter the ID number (**"495344"**).
The following test menu screen will then be displayed:

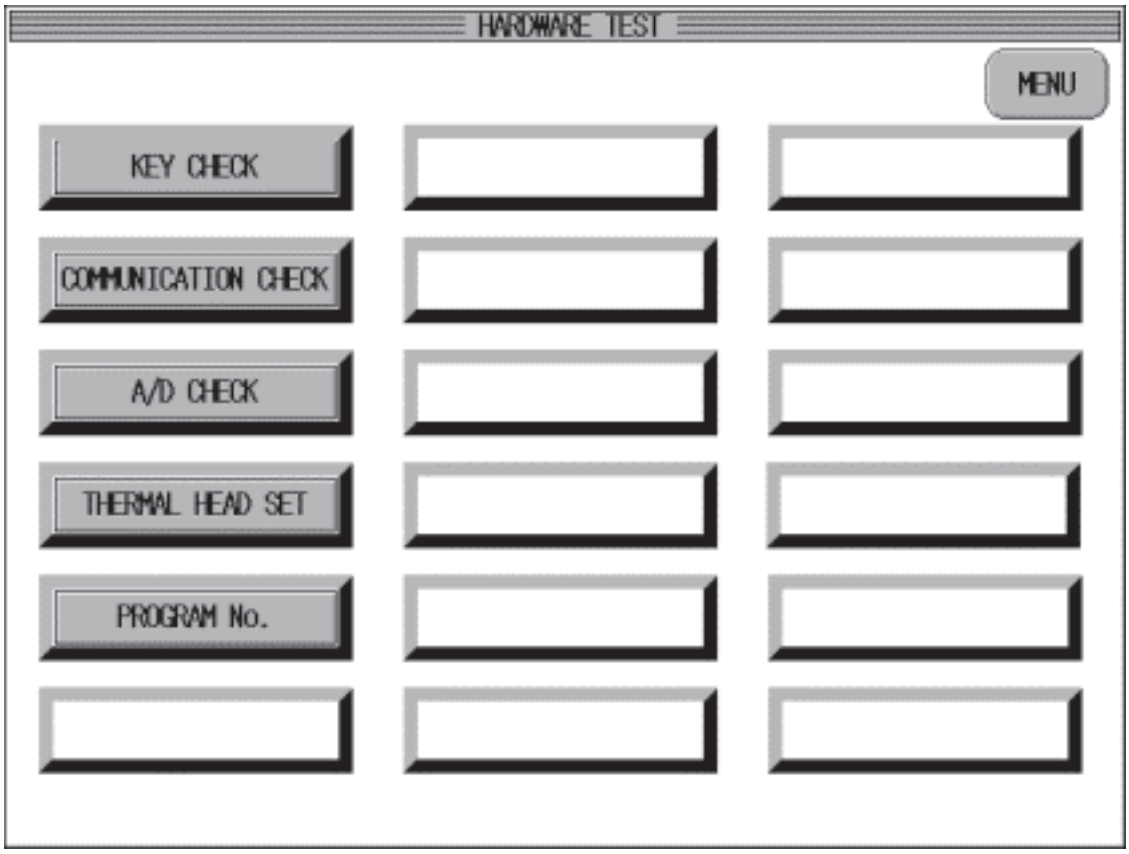


TEST MODE EXIT

After completion of TEST menu, turn OFF the MAIN POWER SWITCH, and ON again, that the menu will return to Normal Mode.

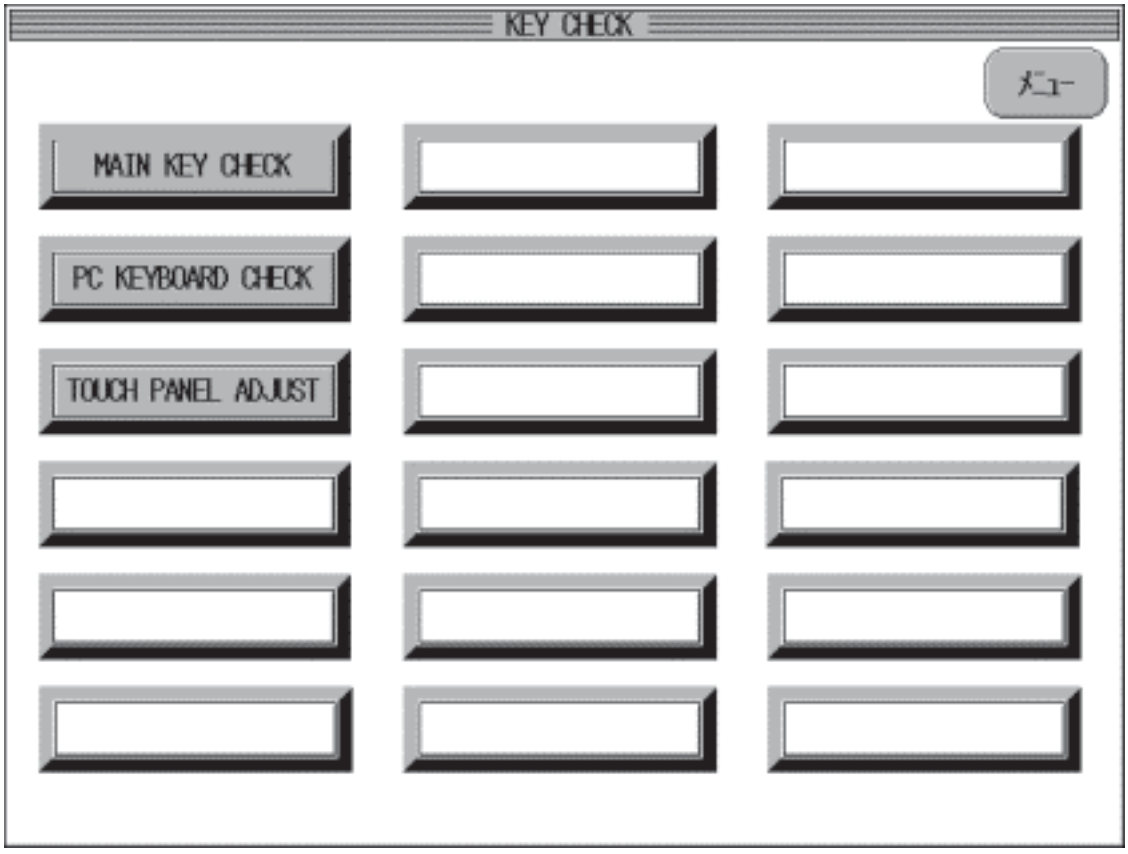
4.1 HARDWARE TEST

Press the **[HARDWARE TEST]** button on the Test Menu screen to display the following screen:

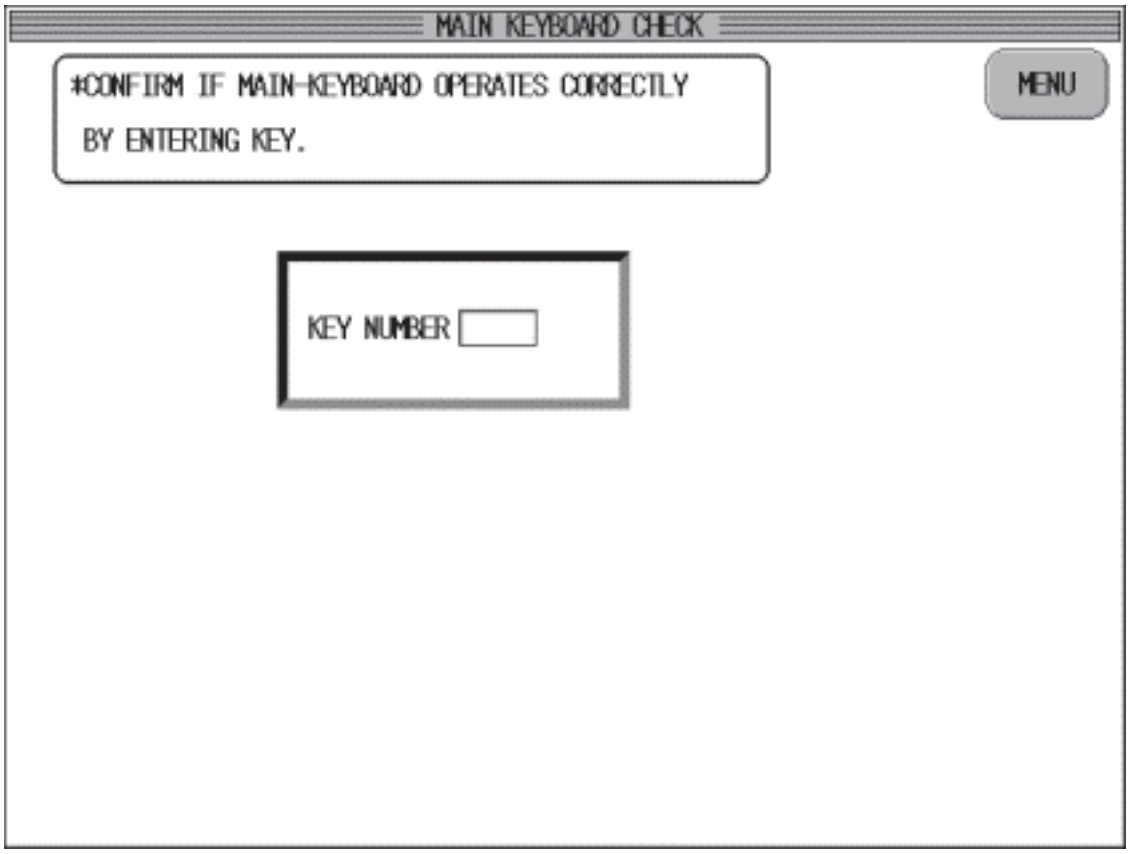


4.1.1 KEY CHECK

Press the **[KEY CHECK]** button on the Hardware Test screen to display the following screen:

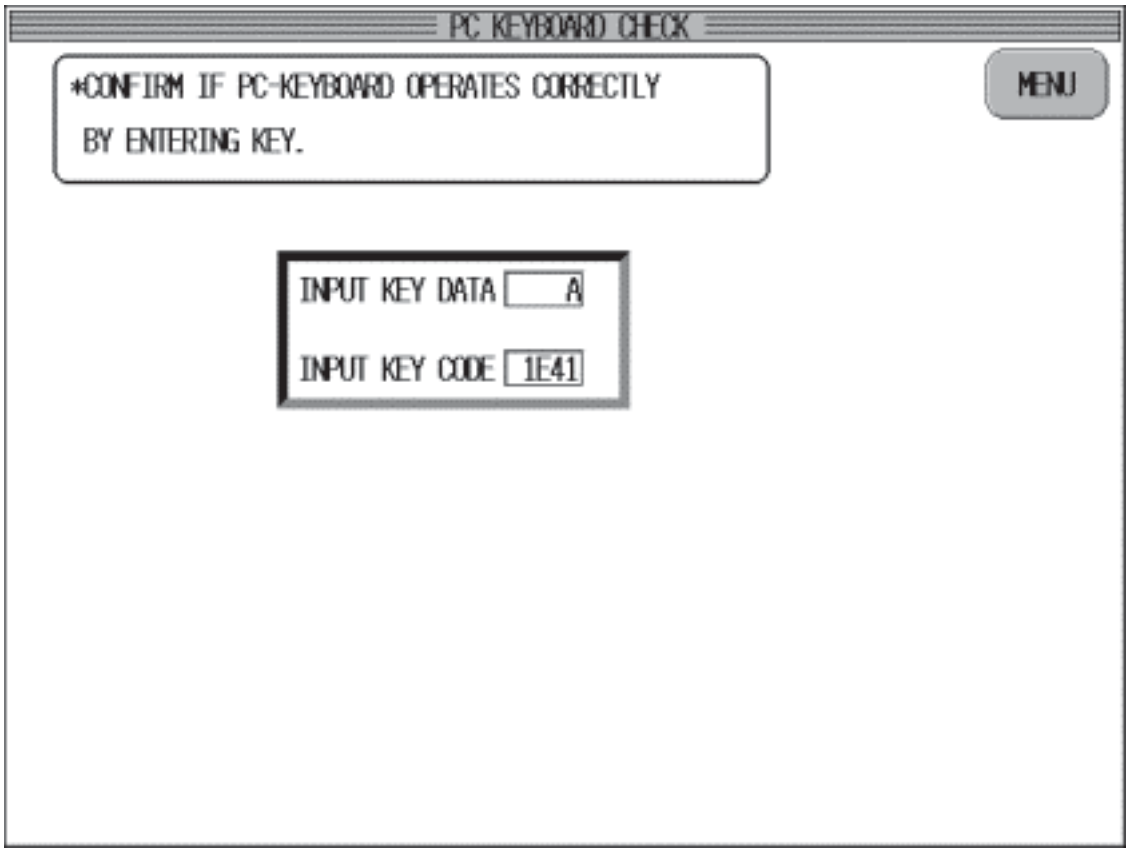


4.1.1.1 MAIN (MEMBRANE) KEYBOARD CHECK



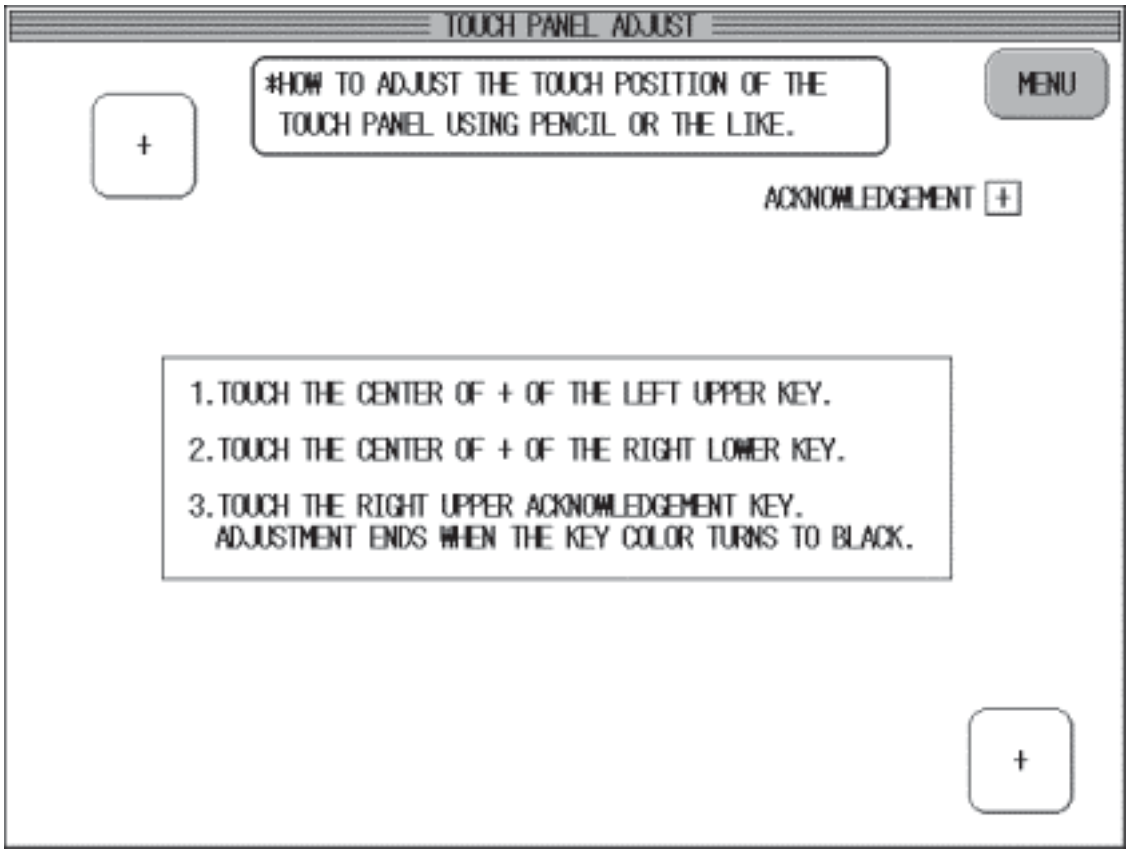
Pressing any of the main (memobrane) Key displays the code of that key.

4.1.1.2 PC KEYBOARD CHECK



Pressing any key on the full keyboard, the PC displays the entered code or control code for internal use.

4.1.1.3 TOUCH PANEL ADJUSTMENT

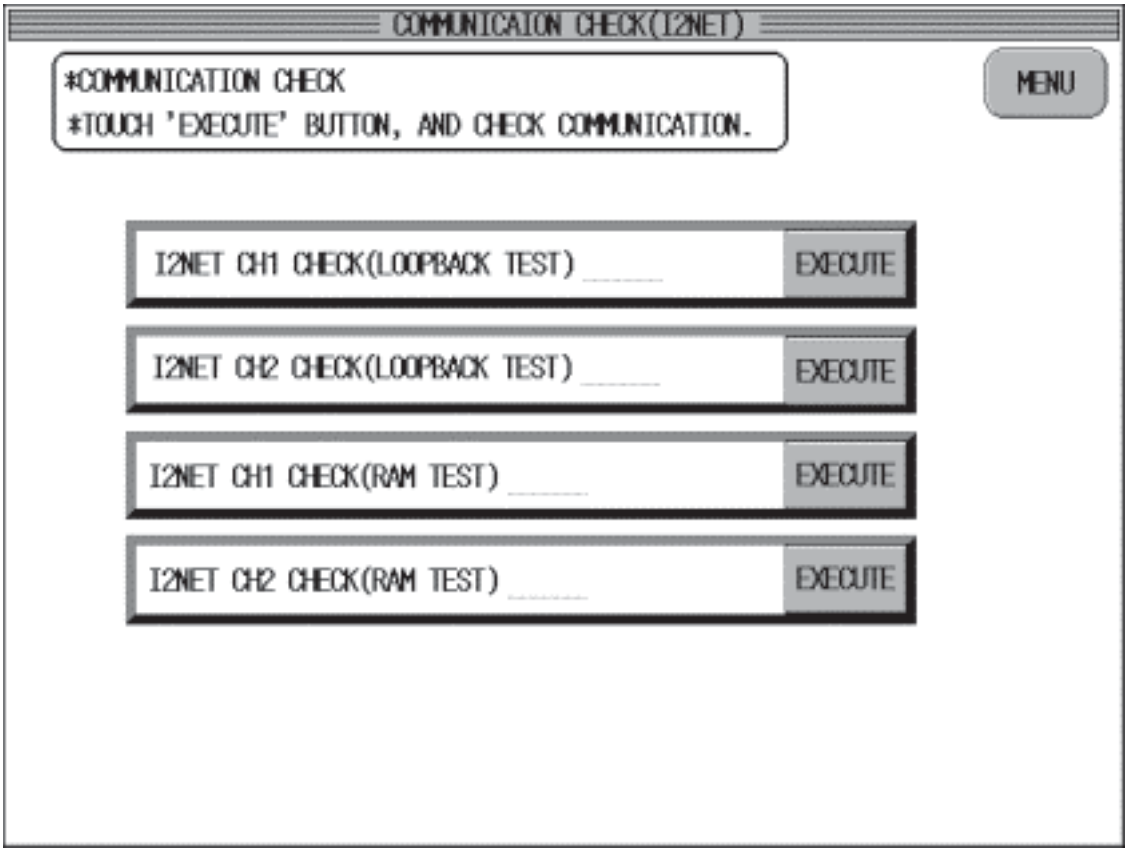

TOUCH PANEL ADJUST
*HOW TO ADJUST THE TOUCH POSITION OF THE TOUCH PANEL USING PENCIL OR THE LIKE.
MENU
+
ACKNOWLEDGEMENT +
1. TOUCH THE CENTER OF + OF THE LEFT UPPER KEY.
2. TOUCH THE CENTER OF + OF THE RIGHT LOWER KEY.
3. TOUCH THE RIGHT UPPER ACKNOWLEDGEMENT KEY.
ADJUSTMENT ENDS WHEN THE KEY COLOR TURNS TO BLACK.
+

- Adjusts the touch position of the touch panel.
- Operational procedure

1) Press the **[+]** button located in the upper left corner of the screen.
2) Press the **[+]** button located in the lower right corner of the screen.
3) Press the **[+]** check button located to the right of **"ACKNOWLEDGEMENT"** in the upper right corner.
4) When the adjustment is complete, the **[+]** check button located to the right of **"ACKNOWLEDGEMENT"** will be highlighted.

4.1.2 COMMUNICATION CHECK

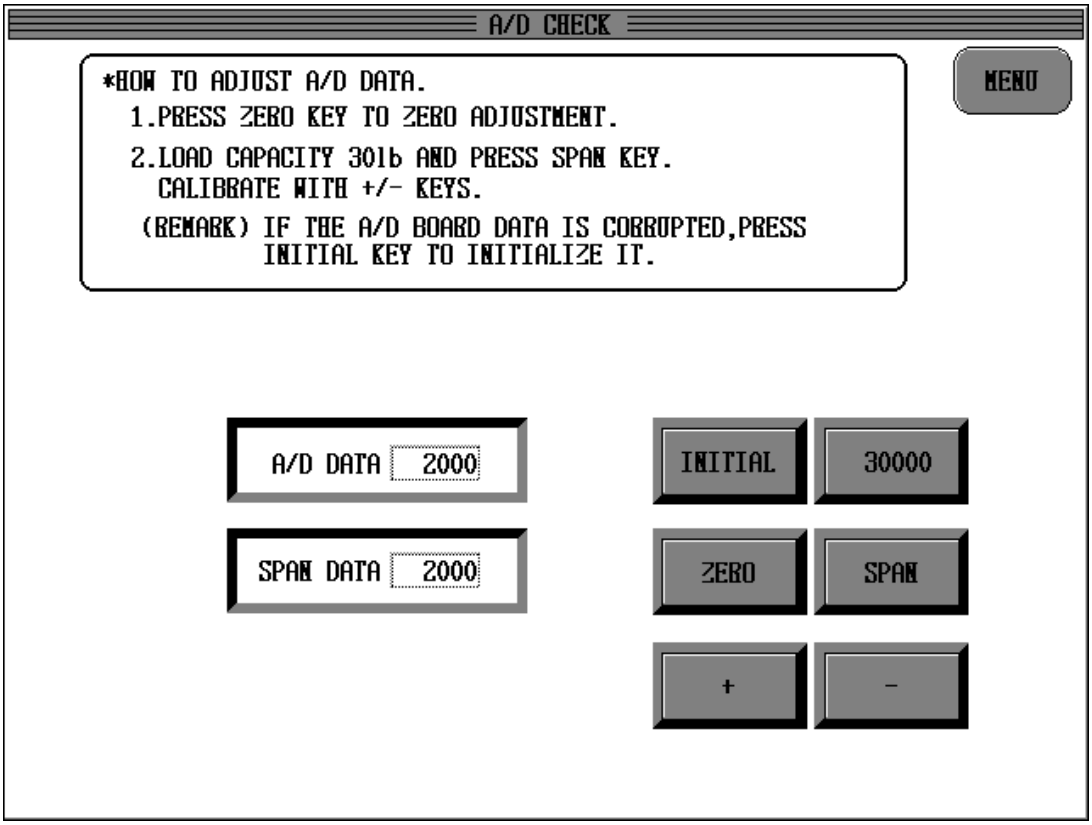
Press the **[COMMUNICATION CHECK]** button on the Hardware Test screen to display the following screen:



Press the corresponding **[EXECUTE]** button on the screen to perform the desired loop-back (line check) test and RAM test for I2NET CH1 and CH2. **"OK"** is displayed when the check is complete. To proceed to the next step after all the communication checks are completed, press the **[MENU]** button on the screen.

4.1.3 A/D CHECK

Press the **[A/D CHECK]** button on the Hardware Test screen to display the following screen. The current A/D data is displayed in the A/D DATA field, and the span data in the SPAN DATA field.



nInitializing all the data on the A/D board.

Press the **[INITIAL]** button on the screen or press the **[COPY]** key to reset all the data on the A/D board.

nSetting the span adjustment count (weight)

To set the span at 30lb (37500 counts), first press the **[30000]** button on the screen. The name of the button changes to **[37500**]. By pressing the button again, it returns to 30000 counts. The same operation is performed by pressing the **[SIZE]** key.

nZeroing

Press the **[ZERO]** button on the screen or press the **[ZERO]** key to perform zero adjustment. (A/D data equaling “2000” and span data equaling “0” are displayed.)

nSpan adjustment

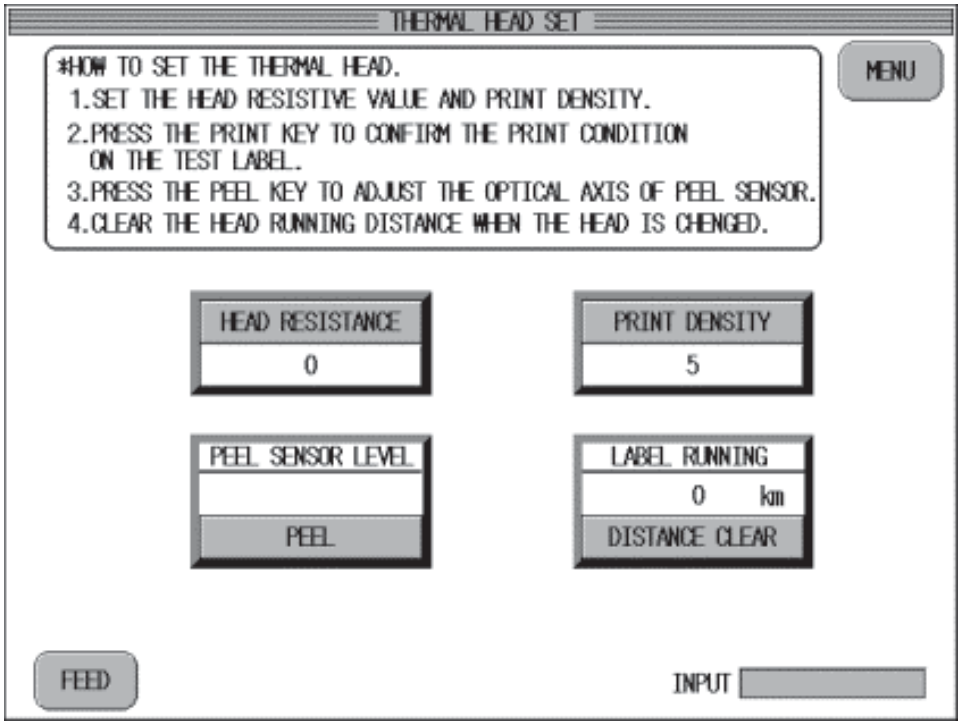
Load 30lb and then press the **[SPAN]** button on the screen or press the **[TARE]** key to perform span adjustment.

nSpan calibration

Perform this operation if calibration is required during the span adjustment operation described above.
Press the **[+]** and **[–]** buttons on the screen or use the a/keys to perform calibration.
Confirm that the [l] (stabilized signal) is displayed on the lower left of the screen.

4.1.4 THERMAL HEAD SET

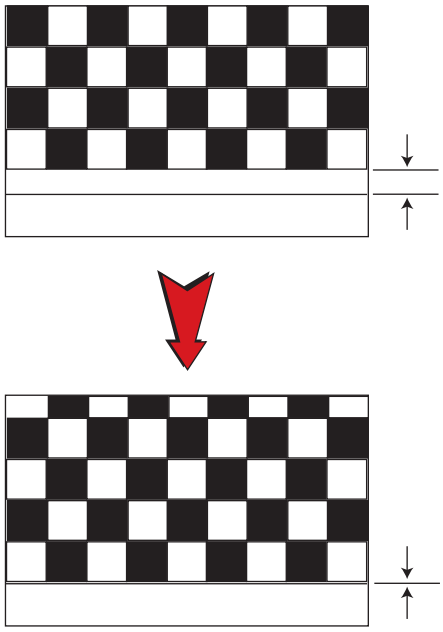
Press the **[THERMAL HEAD SET]** button on the Hardware Test screen to display the following screen:



- **Specifying the resistance of the head**
  Enter the resistance value for the thermal head and press the **[HEAD RESISTANCE]** button on the screen or press the **[HEAD RESISTANCE]** display field to set the data.
- **Specifying the print density**
  Enter the density level (0 – 9) and press the **[PRINT DENSITY]** button on the screen or press the **[PRINT DENSITY]** display field to set the data.
- **Adjusting the peel sensor level**
  Press the **[PEEL]** button on the screen to measure the level of the peel sensor. The measured value is displayed in the **[PEEL SENSOR LEVEL]** display field. Press the **[PEEL]** button on the screen to adjust the optical axis of the peel sensor.
- **Peel sensor sensitivity level**

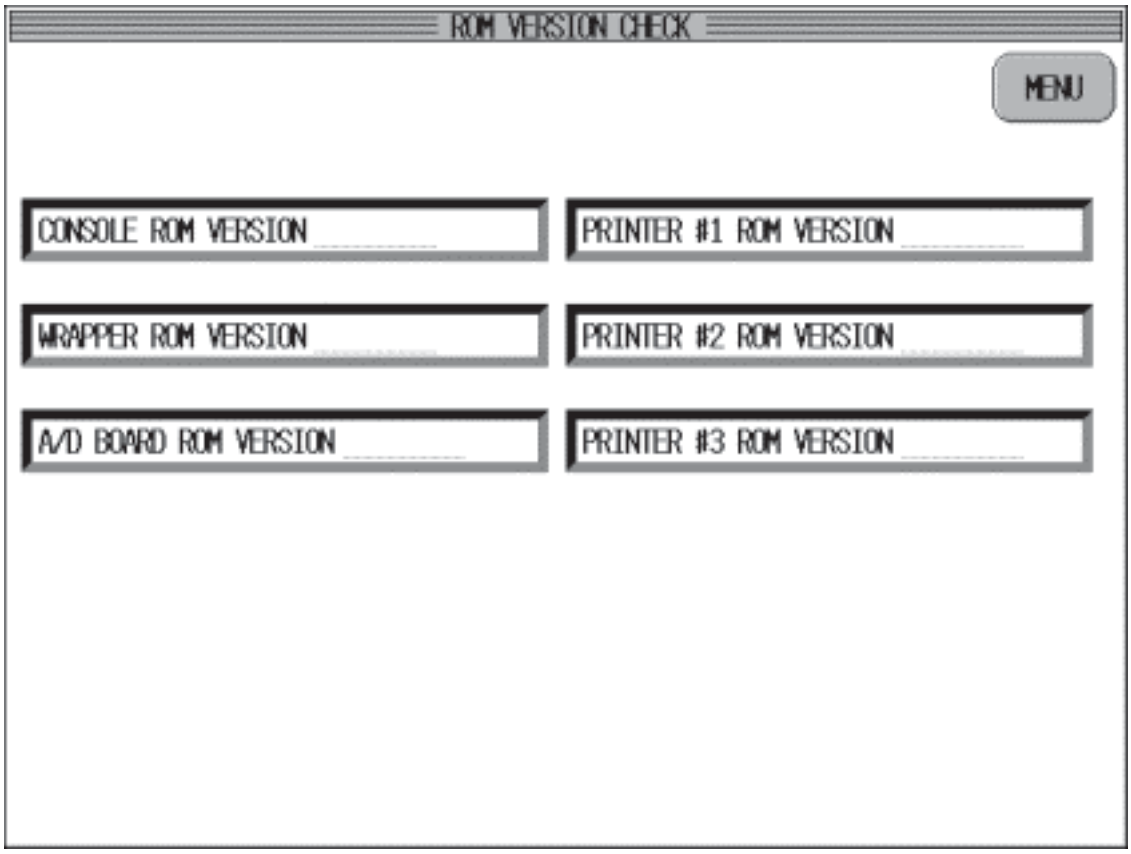
Peel sensor	Sensor display value	Peel Sensor Optical Receiving Voltage
Optical transmission	200 counts or more	4V or more
Interrupted Optical transmission	25 counts or less	0.5V or less

- **Displaying/clearing the head running distance**
  Press the **[DISTANCE CLEAR]** button on the screen to clear the running distance. The current running distance measured after clearing is then displayed in the **[LABEL RUNNING]** display field. When changing the head, clear the running distance.
- **To issue a test label, press the [PRINT] key.**



4.1.5 PROGRAM NUMBER

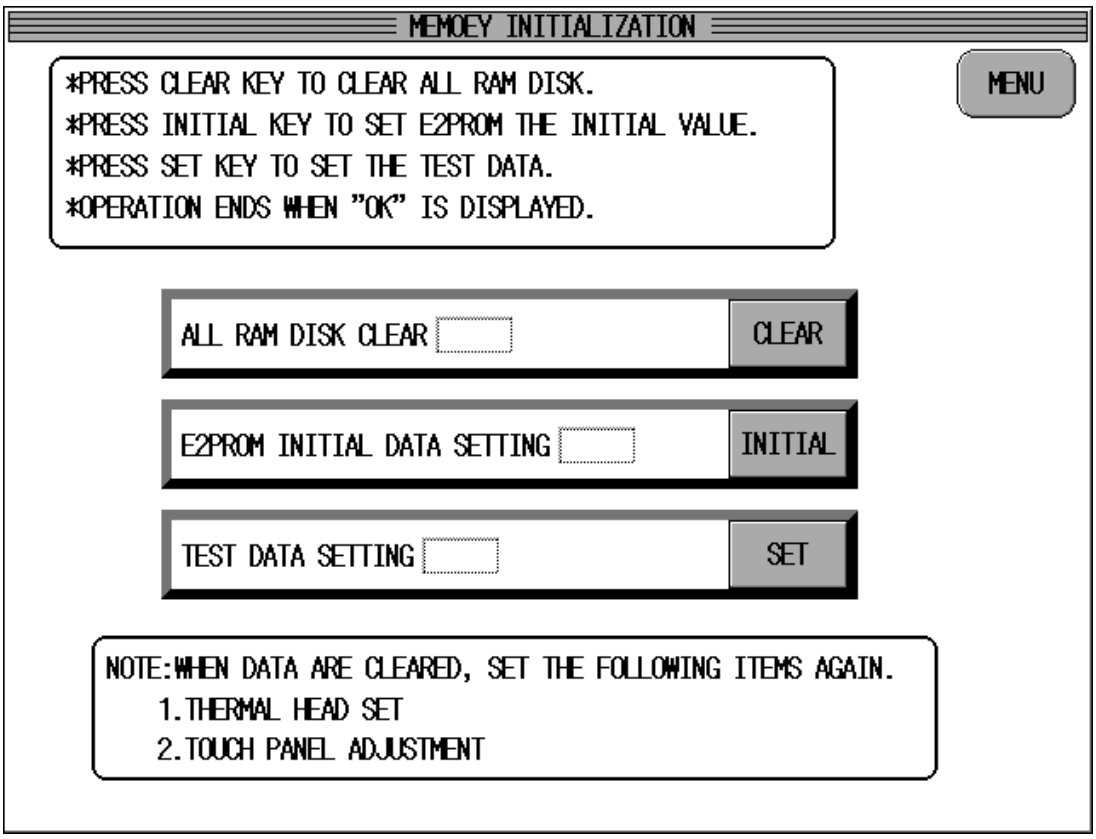
Press the **[PROGRAM No.]** button on the Hardware Test screen to display the following screen. Each ROM version that is incorporated into the machine is displayed.



- **Console ROM version**
  Displays the ROM number and version of the main board in the console.
- **Wrapper ROM version**
  Displays the ROM number and version of the wrapper unit.
- **A/D board ROM version**
  Displays the ROM number and version of the weigh unit board.
- **Printer 1 ROM version**
  Displays the ROM number and version of the main printer.
- **Printers 2 and 3 versions**
  Not used.

4.2 MEMORY INITIALIZATION

Press the **[MEMORY INITIALIZATION]** button on the Test Menu screen to display the following screen. This procedure explains how to initialize the RAM disk and how to perform the necessary test after initialization.


MEMOEY INITIALIZATION
MENU
*PRESS CLEAR KEY TO CLEAR ALL RAM DISK.
*PRESS INITIAL KEY TO SET E2PROM THE INITIAL VALUE.
*PRESS SET KEY TO SET THE TEST DATA.
*OPERATION ENDS WHEN "OK" IS DISPLAYED.
ALL RAM DISK CLEAR
CLEAR
E2PROM INITIAL DATA SETTING
INITIAL
TEST DATA SETTING
SET
NOTE:WHEN DATA ARE CLEARED, SET THE FOLLOWING ITEMS AGAIN.
1.THERMAL HEAD SET
2.TOUCH PANEL ADJUSTMENT

4.2.1 RAM DISK ALL CLEAR PROCESS

Clear execution confirmation pop-up screen will be displayed by pressing the **[CLEAR]** button on the screen.

1. Clear process will be executed when the **[YES]** button is pressed. OK is displayed when the clear is performed without any errors. When an error occurs, ERR is displayed.
2. When the **[NO]** button is pressed, clear is not executed. The execution confirmation pop-up screen will then close.

4.2.2 E2PROM INITIALIZE PROCESS

The initialize execution confirmation pop-up screen will be displayed by pressing the **[INITIAL]** button on the screen.

1. Initialize is executed when the **[YES]** button is pressed. OK is displayed when the initialization is performed without any errors. When an error occurs, ERR is displayed.
2. When the **[NO]** button is pressed, initialization is not executed. The execution confirmation pop-up screen will then close.

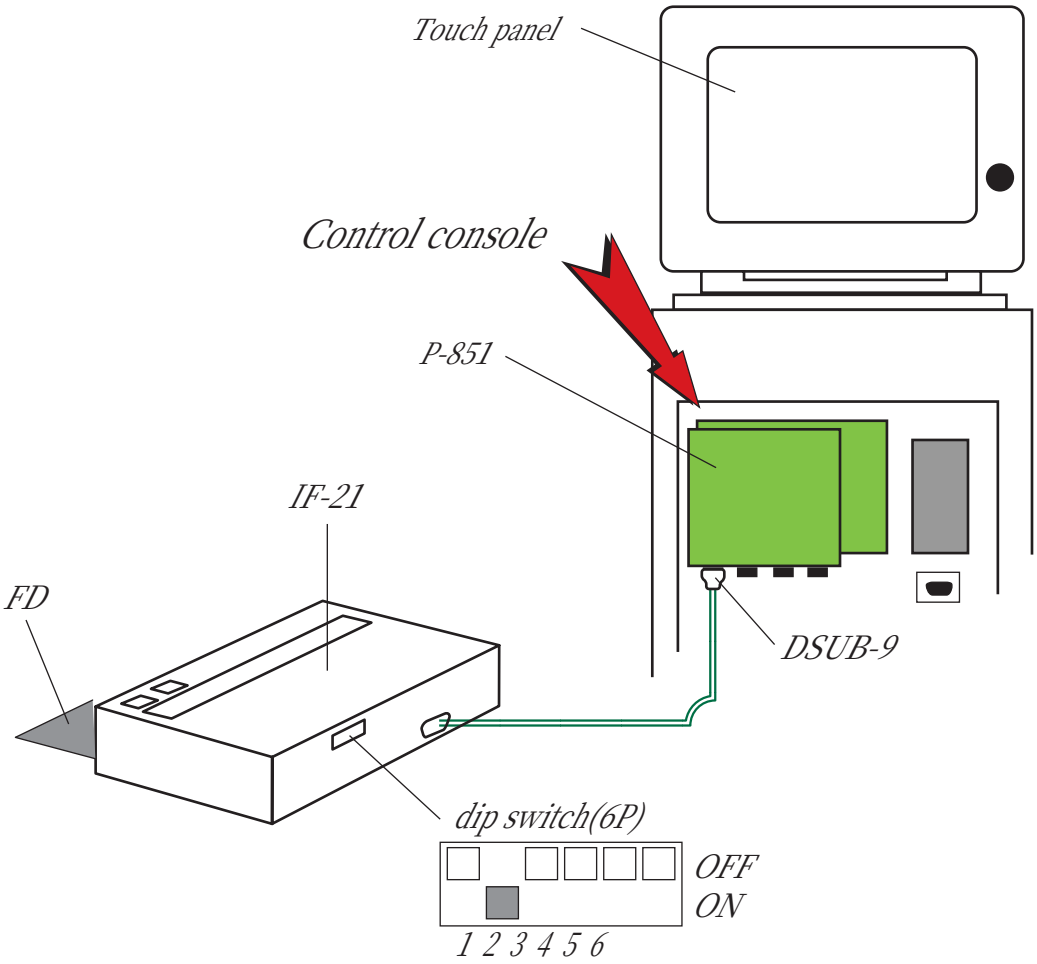
4.2.3 TEST DATA SETTING PROCESS

Test data setting execution confirmation pop-up screen will be displayed by pressing the **[SET]** button on the screen.

1. Test data setting is executed when the **[YES]** button is pressed. OK is displayed when the setting is performed without any errors. When an error occurs, ERR is displayed.
2. When the **[NO]** button is pressed, setting is not executed. The execution confirmation pop-up screen will then close.

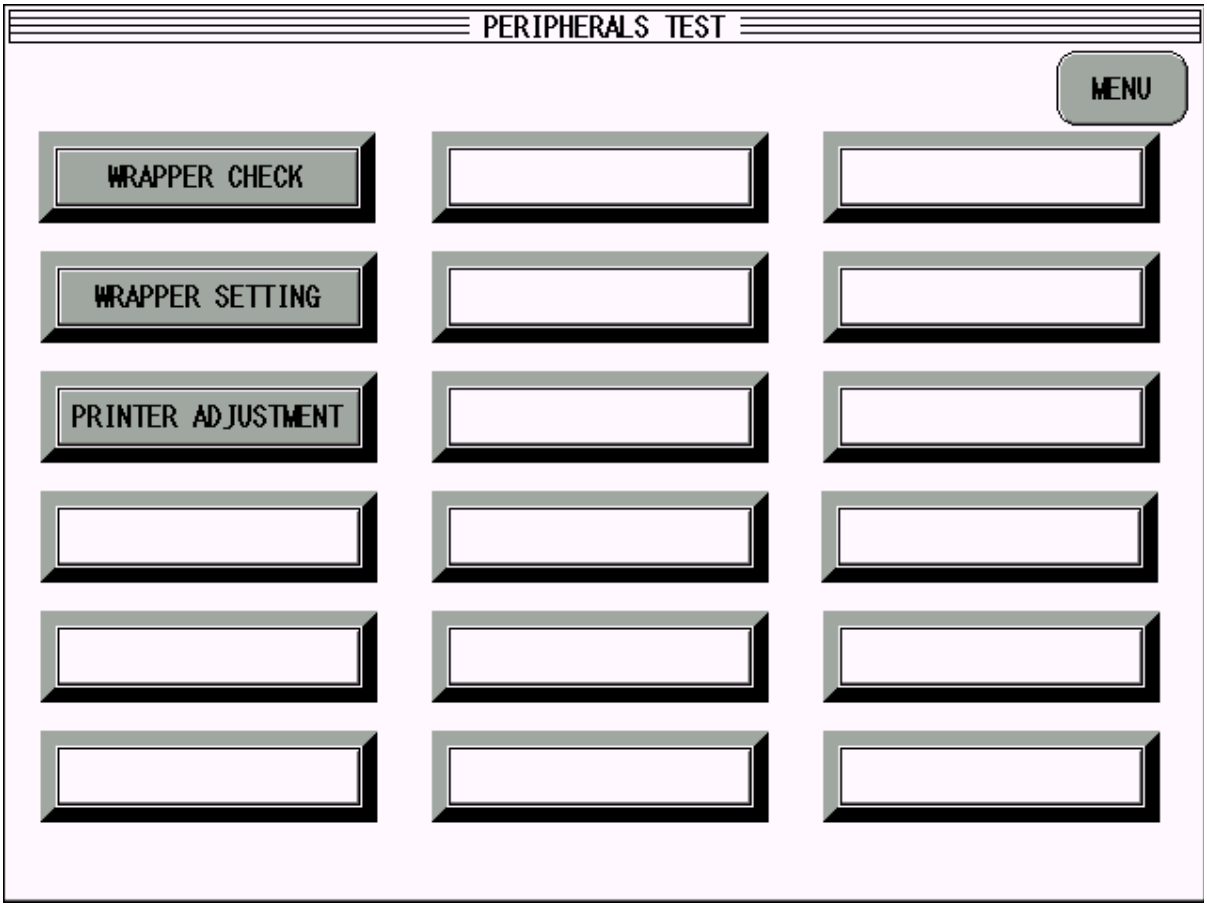
Process to connect wiyh IF-21 when Data Save/Load, and Dip switch setting.

1. Connect DSUB-9 from IF-21 to “Option” connector at the bacward of Control console (P-851).
2. Insert Power plug for IF-21.
3. Tura ON Dip switch No.2 of IF-21.
4. Insert FD into IF-21.
5. Save or load the data though Data Save/Load menu.



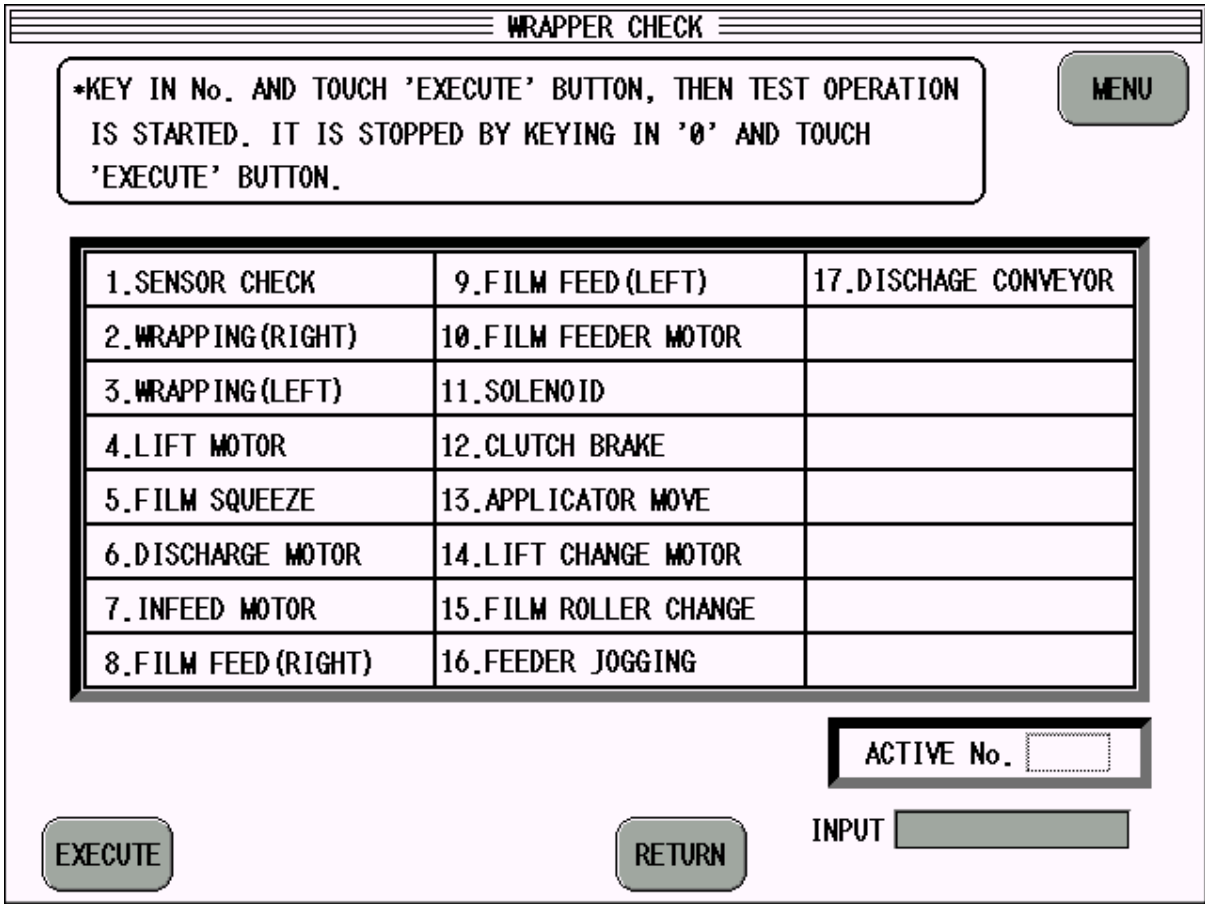
4.3 PERIPHERAL MACHINE

Press the **[PERIPHERAL MACHINE TEST]** button on the Test Menu screen to display the following screen.
This procedure explains how to perform checks on the wrapper unit operation and set up of the hardware after installation has been completed.



4.3.1 WRAPPER CHECK

Press the **[WRAPPER CHECK]** button on the Peripherals Test screen to display the following screen:



Executing the check operation

Enter an operation No. (1 to 16) and press the **[EXECUTE]** button on the screen to perform the test operation corresponding with the entered number.

1	Sensor check	10	Moving the feeder
2	Wrapping (right)	11	Solenoid
3	Wrapping (left)	12	Clutch brake
4	Lift operation	13	Moving the labeling machine
5	Film squeeze	14	Switching between the larger and smaller lifts
6	Discharge pressure	15	Switching between the right and left rollers
7	Feeding	16	Jogging the feeder
8	Film feeding (right)	17	Dischage Conveyor
9	Film feeding (left)		

Stopping the operation

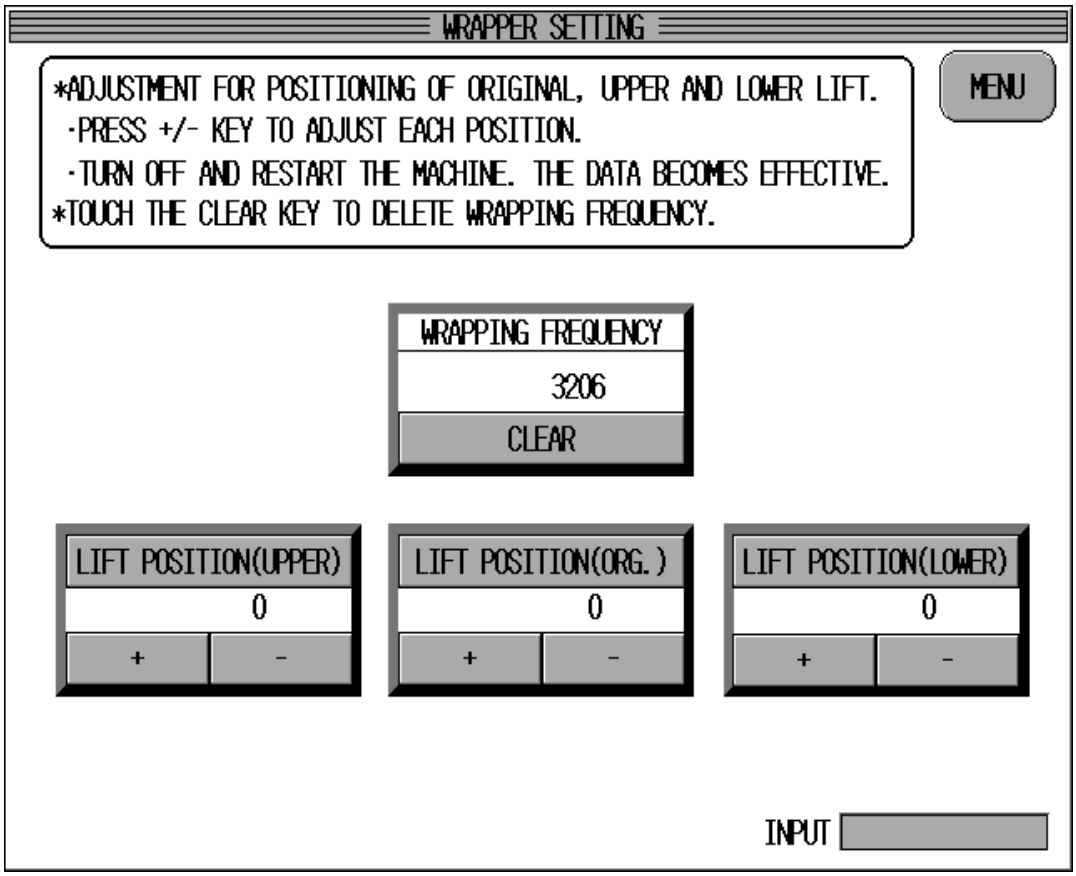
Enter “0” and then press the **[EXECUTE]** button on the screen to stop the test operation.

Returning

Press the **[RETURN]** button on the screen to return the wrapper unit original settings.

4.3.2 WRAPPER SETTING

Press the **[WRAPPER SETTING]** button on the Peripherals Test screen to display the following screen:



Please do not turn OFF the power while "WRAPPER SETTING" display.
When you turn OFF the power, press "MENU" button and return to "TEST MENU" display, and turn OFF the power.

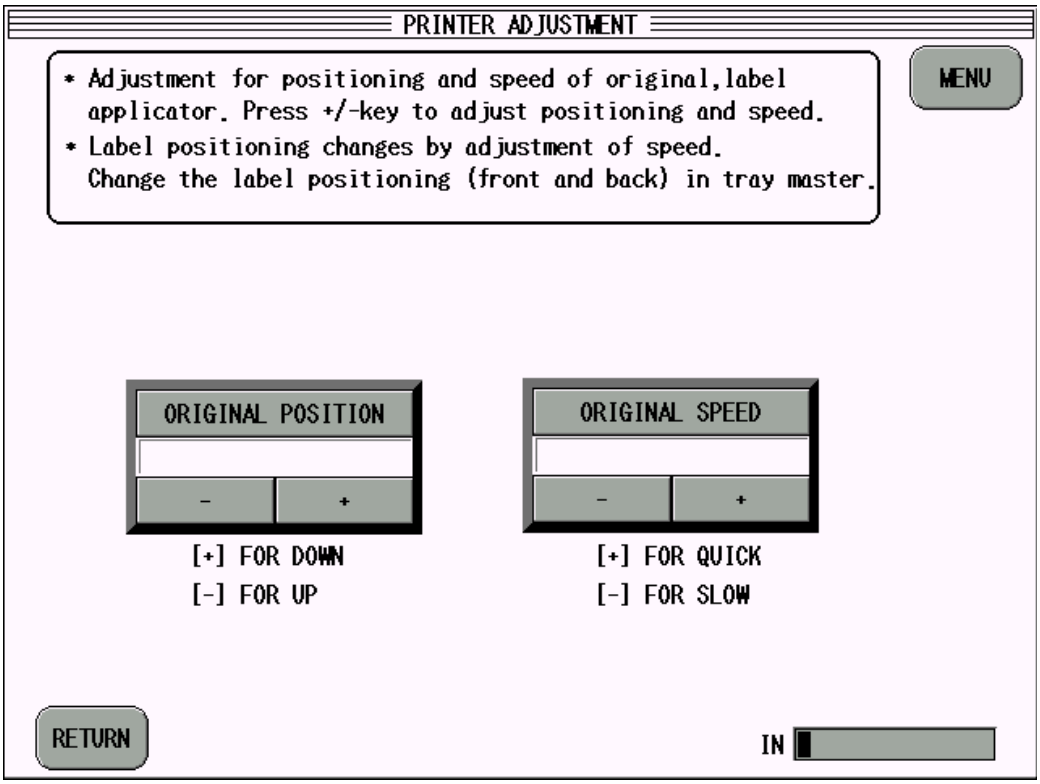
Adjust the lift position, original upper and lower positions by pressing either the **[+]** or **[-]** buttons on the screen. The positioning data will take effect only after the power has been switched off and the machine restarted.
Press the **[CLEAR]** button on the screen to delete the wrapping frequency data.

- **Checking/clearing the number of wrapping operations**
  Press the **[CLEAR]** button in the **[WRAPPING FREQUENCY]** field on the screen to clear the number of wrapping operations. The number of wrapping operations after clearing is displayed in the **[WRAPPING FREQUENCY]** field on the screen.
- **Adjusting the upper-end position of the lift**
  Enter the numeric data and press the **[LIFT POSITION(UPPER)]** button on the screen or press either the **[+]** or [- **]** button on the screen to adjust the upper end position of the lift.
- **Adjusting the original position of the lift**
  Enter data and press the **[LIFT POSITION(ORG.)]** button on the screen or the **[+]** or **[-]** buttons on the screen to adjust the origin of the lift.
- **Adjusting the lower end position of the lift**
  Enter data and press the **[LIFT POSITION(LOWER)]** button or the **[+]** or **[-]** buttons on the screen to adjust the lower end position of the lift.

n Criteria for Adjusting Each Position

Original lift position	Adjust the surface of the infeed conveyor and lift head to the same level.
Upper lift position	Adjust the positioning with the wrapping plate.
Lower lift position	Adjust the positioning of the lift head and the switching lever.

4.3.3 PRINTER ADJUSTMENT



Original Position (Applicator Vacuum plate stand-by position)
Setting an original position (Applicator Vacuum plate stand-by position)

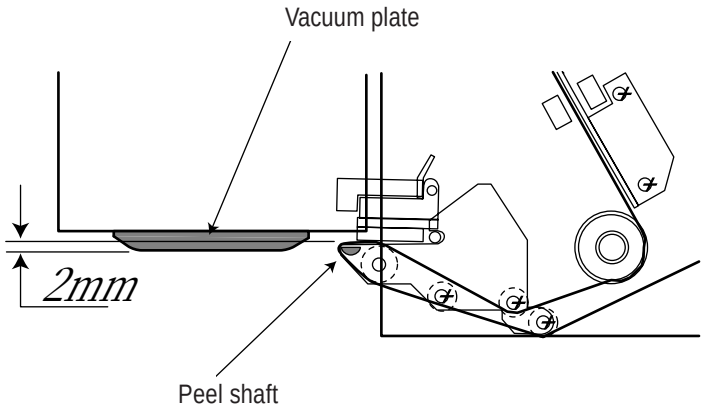
- Set to change the applicator vacuum plate stand-by position in a label Peel state using the [+] and [-] buttons.
- Issue a label to check the label Peel state, and adjust the position up and down using the [+] button to move up and the [-] button to move down.
- Setting range is "1" to "9". Default setting is "3" (1 depending on models)
- Once the data is set, it will not be cleared by RAM clear operations.

Original Speed (Applicator arm up and down speed)
Setting an original speed (Applicator arm up and down speed)

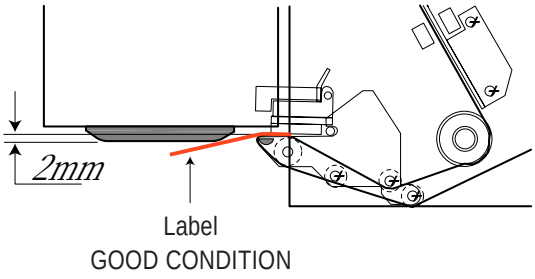
- Set to change the applicator arm speed, using the [+] and [-] buttons.
- Adjust to change the speed so as not to drop the label when the arm moves down in a state when the label is sacked to the plate. Adjust the speed using the [+] button to increase and the [-] button to decrease.
- Setting range is "1" to "15". Default setting is "8".
- Once the data is set, it will not be cleared by RAM clear operations.

4.3.3.1 ORIGINAL POSITION

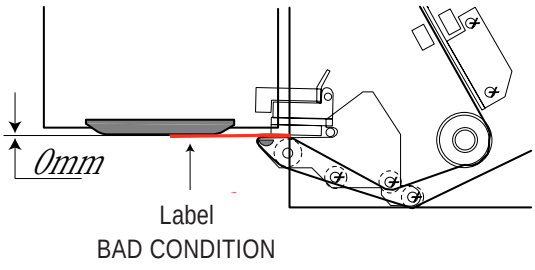
A gap between the Vacuum Plate and Peel Shaft is originally set as 2 mm. Adjustment is required when the label does not hit the vacuum plate.



Good condition
The set vacuum plate position is "2 mm", and a label hits the vacuum plate then comes out downward as illustrated.



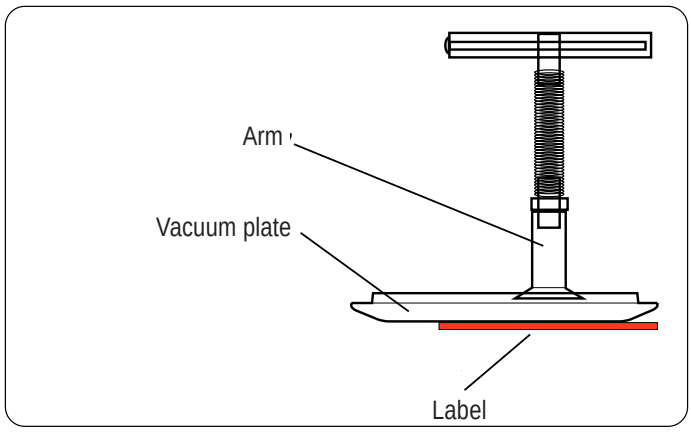
Bad condition
The set Vacuum plate position is "0 mm", and a label does not hit the vacuum plate and then comes out horizontally as illustrated. In this case, increase the displayed value by +2.



4.3.3.2 ORIGINAL SPEED

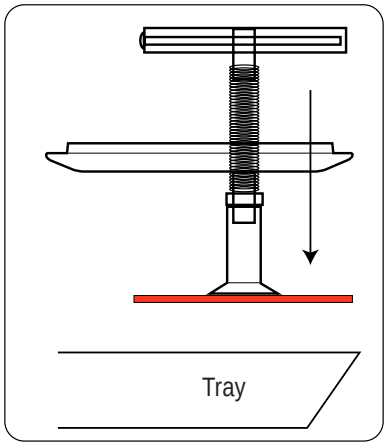
- The arm descending speed can be set.
- Adjustment is required when the arm does not release the label until it reaches the tray.
- Adjust the speed using the [+] button to increase and the [-] button to decrease.

- The arm stands in the state where a label is sacked to the vacuum plate, then the label apply signal triggers start descending the vacuum plate and the arm, and the rubber cushion located at the arm end applies the label to a tray.



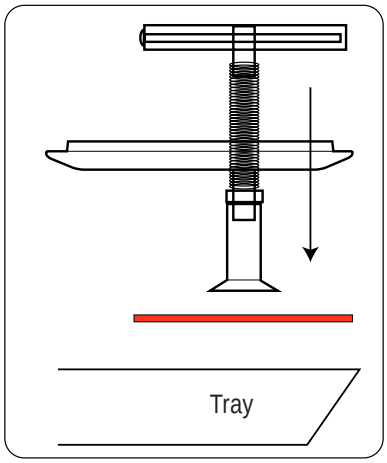
Good condition

- A label is sacked to the rubber cushion, not released until it reaches the tray, and applied to the specified position.
- Setting change for speed adjustment is not required.

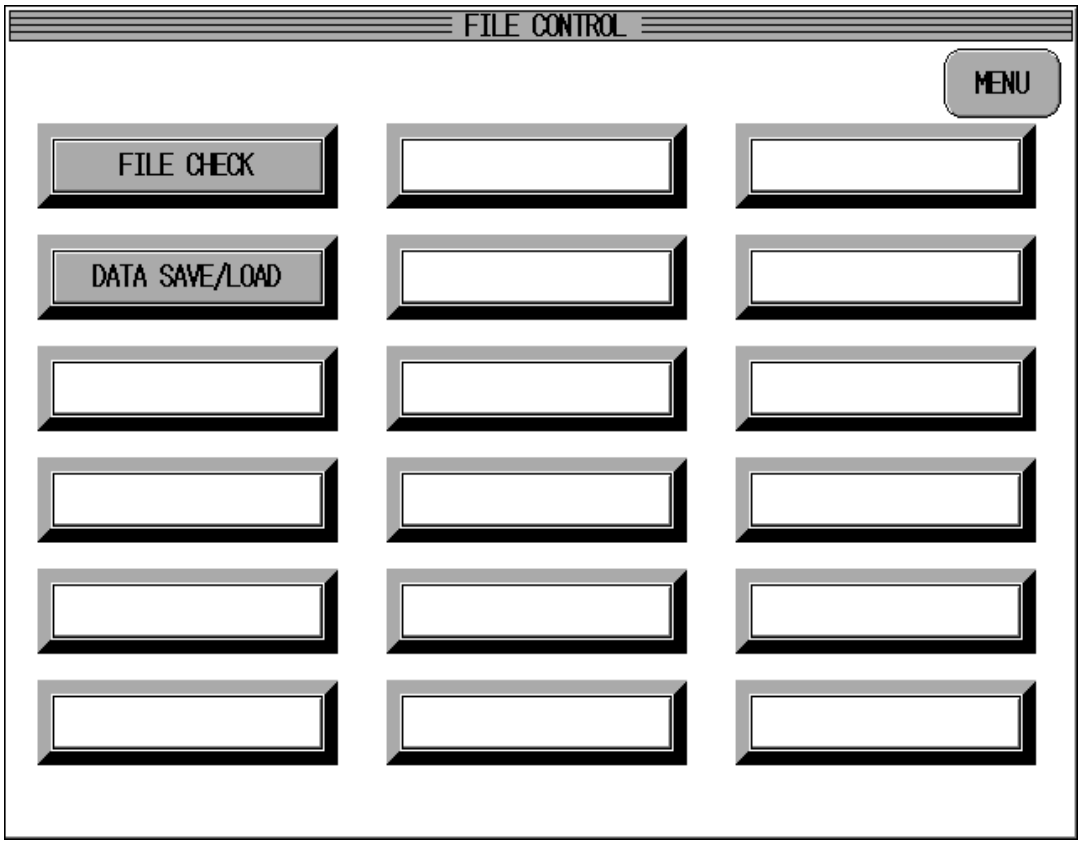


Bad condition

- A label is released from the rubber cushion until it reaches the tray, and not applied to the specified position.
- Speed setting must be changed by increasing +2 ("10" in case of "8").



4.4 FILE CONTROL



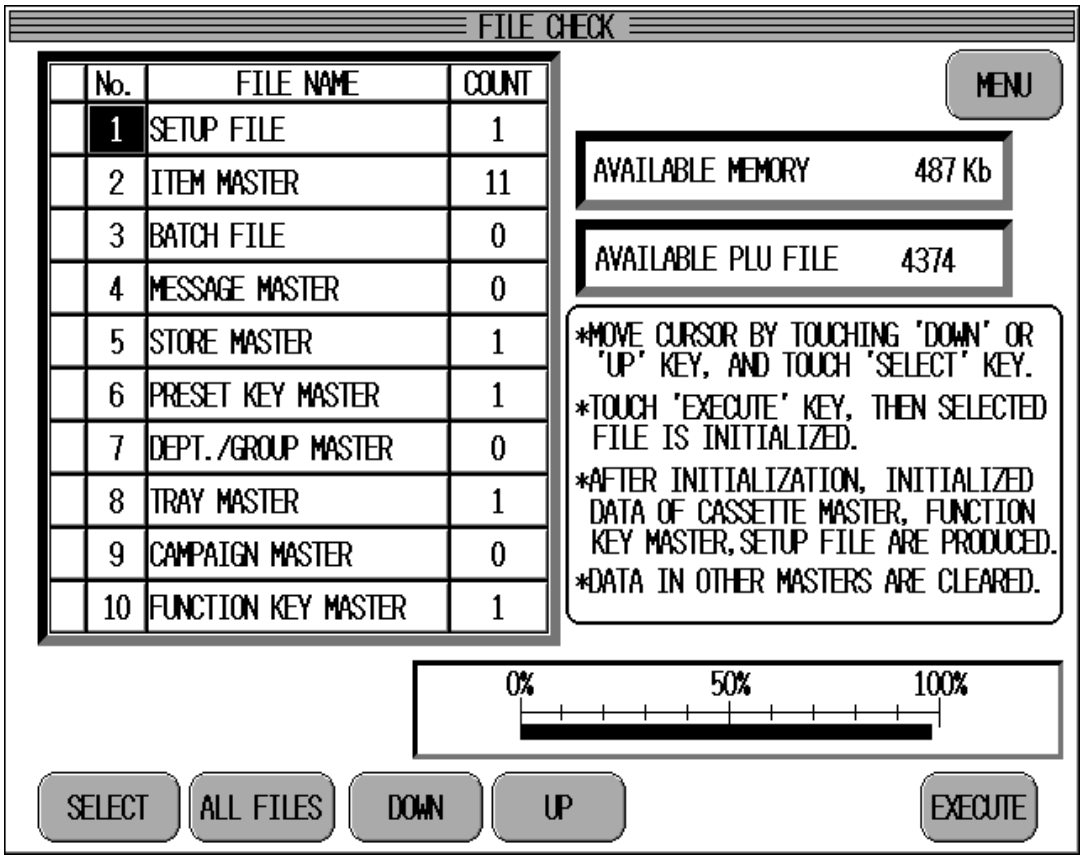
File Check

1. Registration status and the remaining capacity of each master is displayed.
2. Each master is initialized.

File Save/Load

1. Master file save/load is performed using IF21.
2. Master file save/load is performed using a PC.
3. The applicable masters are only for OMNi-3000 S/ST series.

4.4.1 FILE CHECK



File Information Display Area
FILE NAME : Master file name to be initialized is displayed.
COUNT : The number of existing master files is displayed.

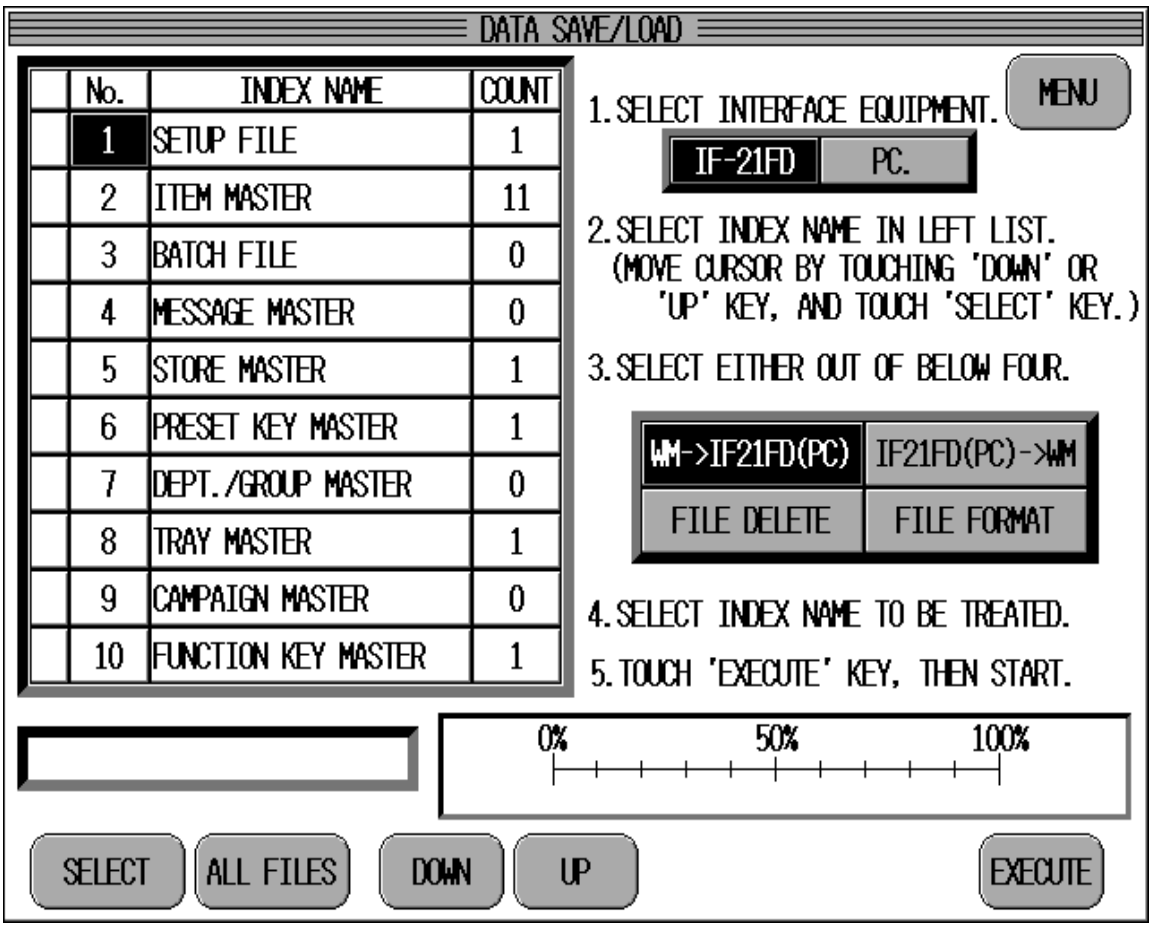
Memory Available Information Display
AVAILABLE MEMORY : The remaining memory capacity is displayed.
AVAILABLE PLU FILE : Approximate number of remaining PLU files is displayed.

Initialized File Selection
Select the file to be initialized by moving the cursor up or down using either the **[DOWN]** or **[UP]** buttons on the screen. The selected number will then be highlighted. Press the **[SELECT]** button on the screen, then the "1" mark will be displayed on the right side of the file information display area. The file information displaying the "1" mark is the selected file for initialization. To cancel the selection, press the **[SELECT]** button again. All file selection or cancellation is performed by pressing the **[ALL FILES]** button on the screen. When the item master is selected, unit price batch master can always be selected at the same time.

Execution of Initialization
Initialize execution confirmation pop-up screen will be displayed by pressing the **[EXECUTE]** button on the screen. Initialization is performed by pressing the **[YES]** button on the screen.
When no button is pressed, the initialization will not be executed, and the confirmation screen will close.

When executed, initial values will be set for the cassette master, function key master and system master.

4.4.2 DATA SAVE / LOAD



Connecting Device Selection

External connection device is selected by pressing either the **[IF-21FD]** or **[PC]** button on the screen. The selected equipment will be highlighted, and then the index file will be downloaded. The index name selection screen will then be displayed.

IF-21FD : Data save/load is performed using the IF-21FD.
PC : Data save/load is performed using the PC. (PC software needs to be created.)

Index Name Selection

Select the index file for save/load by moving the cursor up or down using either the **[DOWN]** or **[UP]** buttons on the screen. The selected number will then be highlighted. Press the **[SELECT]** button on the screen, then the "1" mark will be displayed on the right side of the file information display area. The file information displaying the "1" mark is the selected file for save/load. When the **[ALL FILES]** button on the screen is pressed, an error occurs and the alarm buzzer will sound.

Master Send/Receive and Delete Selection

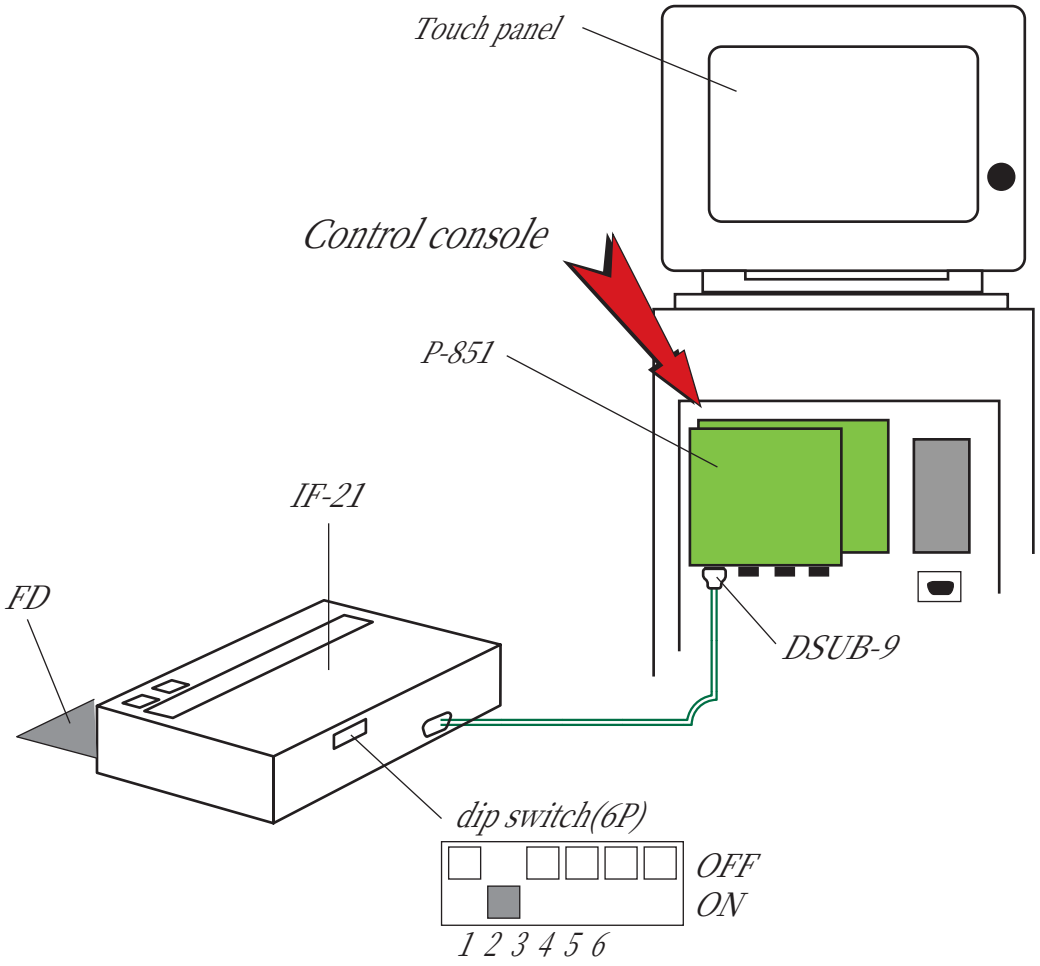
Select the item to be processed by pressing either the **[WM" "" " IF21FD(PC)]**, **[IF21FD(PC)**" "" " **WM]** or **[FILE DELETE]** button on the screen. Master file names included in the selected index will be displayed.

FD Format Selection

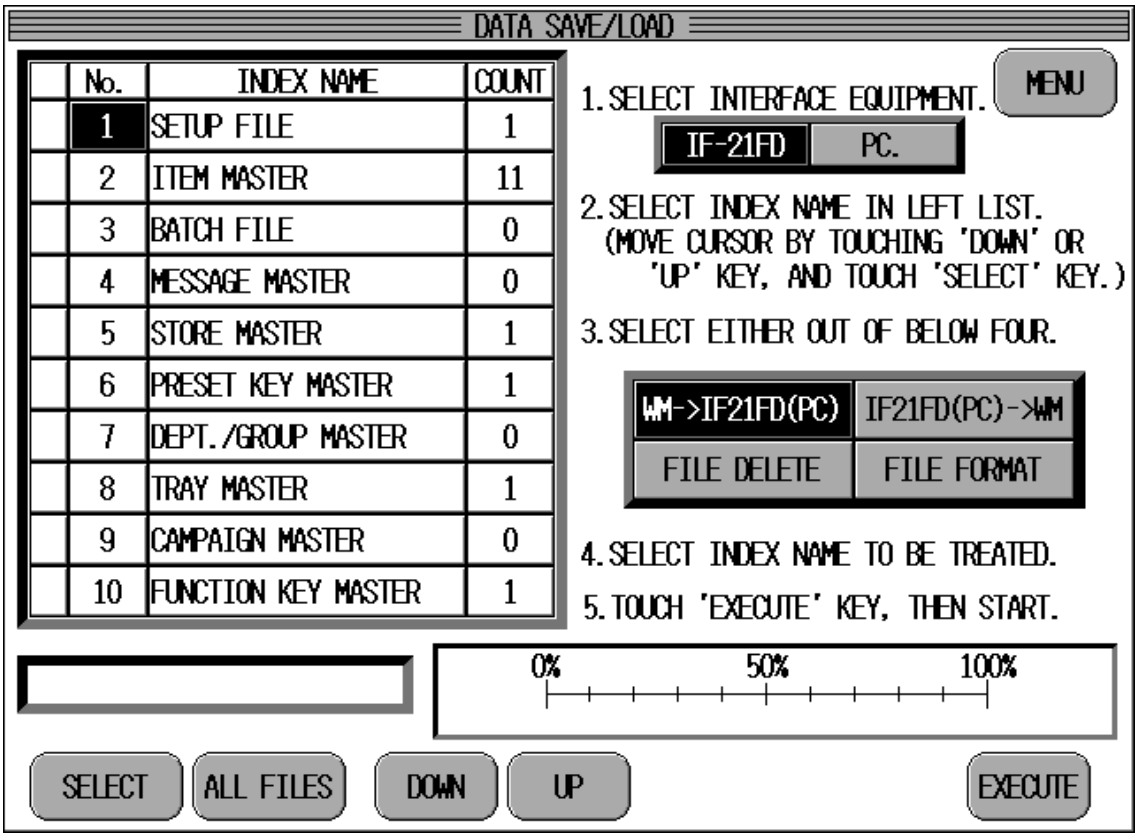
FD format execution confirmation pop-up screen will be displayed by pressing the **[FILE FORMAT]** button on the screen. FD format is executed by pressing the **[YES]** button the execution confirmation pop-up screen. When no button is pressed,

Process to connect with IF-21 when Data Save/Load, and Dip switch setting.

1. Connect DSUB-9 from IF-21 to "Option" connector at the backward of Contorol Console (P-851).
2. Insert Power piug for IF-21.
3. Turn ON Dip switch No. 2 of IF-21.
4. Insert FD into IF-21.
5. Save or load the data though Data Save/Load menu.



FILE SAVE / LOAD EXECUTION SCREEN



Master File Selection

Select the master file for save/load execution by moving the cursor up or down using either the **[DOWN]** or **[UP]** buttons on the screen. The selected number will then be highlighted.

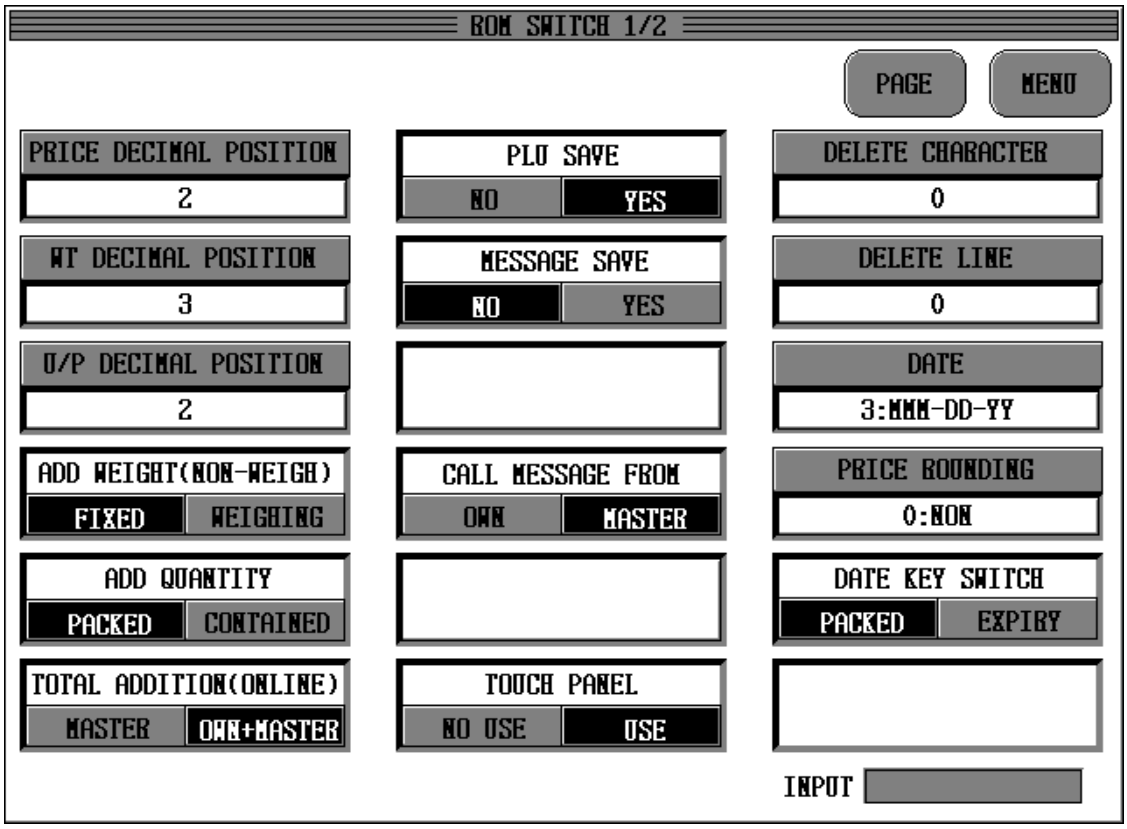
Press the **[SELECT]** button on the screen, then the "l" mark will be displayed on the right sideof the file information display area. The file information displaying the "l" mark is the selected file for save/load. To cancel the selection, press the **[SELECT]** button again. All file selection or cancellation is performed by pressing the **[ALL FILES]** button on the screen.

Initialize Execution

Execution confirmation pop-up screen will be displayed by pressing the **[EXECUTE]** button on the screen. When the **[YES]** button is pressed, the execution is performed. When the **[NO]** button is pressed, execution is not performed and the confirmation pop-up screen will close.

4.5 ROM SWITCH SETTING

4.5.1 ROM SWITCH SETTING 1/2



Price Decimal Point Position Button

1. The decimal point position (number of decimals) is set for price data (display/print).
2. Data range is from 0 to 6 (because the max. digits for price data is 7).
3. Default value is 2 decimal points.

Weight Decimal Point Position Button

1. The decimal point position (number of decimals) is set for weight data (display/print).
2. Data range is from 0 to 3 (because the max. digits for tare data is 4).
3. Default value is 3 decimal points.

Unit Price Decimal Point Position Button

1. The decimal point position (number of decimals) is set for unit price data (display/print).
2. Data range is from 0 to 5 (because the max. digits for unit price data is 6).
3. Default value is 2 decimal points.

Actual Weight Addition Switch Button for Fixed Weight and Price Item

1. Actual add selection for fixed weight and price item weigh data (fixed weight/actual weight).
2. **FIXED:** The fixed weight data is added.
   WEIGHING: The actual weigh data is added.
3. Press either button to select the desired function. Selected button will be highlighted.
4. The default value is FIXED.

Fixed Price Quantity Addition

1. Quantity calculation is selected when an addition or subtraction to/from the total is performed.
2. **PACKED:** Number of packs is calculated, regardless of quantities included.
   CONTAIND: Calculation is made based on the formula; quantity ~ number of packs.
3. Press either button to select the desired function. Selected button will be highlighted.
4. The default value is PACKED.

Addition to Total (applicable only for satellite machines)

1. Select whether or not to allow satellite machines to perform additions to totals during on-line use.
2. **MASTER :** Addition is performed only for the master machine.
   OWN+MASTER : Addition is performed both for the master and satellite machines.
3. Press either button to select the desired function. Selected button will be highlighted.
4. The default value is MASTER.

PLU Save in Satellite Machines (not yet applicable)

1. Select whether or not to save PLU master in own machine that is called-up by the satellite machine during master/satellite use.
2. Press the button to select the desired function. Selected button will be highlighted.
4. The default value is NO SAVE.

Message Save in Satellite Machines (not yet applicable)

1. Select whether or not to save message master in own machine that is called-up by the satellite machine during master/satellite use.
2. Press the button to select the desired function. Selected button will be highlighted.
4. The default value is NO SAVE.

Message Reference in Satellite Machines (not yet applicable)

1. Select which message master (within own machine or master machine) to be referred by the satellite machine during master/satellite use.
2. Press the button to select the desired function. Selected button will be highlighted.
4. The default value is MASTER.

Touch Panel

1. Select whether the touch panel can be used or not in normal mode. However, even if NO USE is selected, there are still some functions that require the touch panel to be used.
2. Press the button to select the desired function. Selected button will be highlighted.
3. The default value is NO USE.

Cut Character Number Button

1. Program the cut number of characters when the table of item names, message names, and coupon names are displayed.
2. Data range is from 0 to 47 (because the max. number of characters for one line is 48).
3. The default value is 0 characters (no cut).

Cut Line Number Button

1. Program the cut number of lines when the table of item names, message names, and coupon names are displayed.
2. Data range is from 0 to 29 (because the max. number of lines is 30).
3. The default value is 0 lines (no cut).

Date Selection

1. Program the order sequence of the date display/print.
2. Data range is from 0 to 5 (0 = M/D/Y, 1 = D/M/Y, 2 = Y/M/D, 3 = M (alphabet)/D/Y, 4 = D/M (alphabet)/Y, 5 = Y/M (alphabet)/D).
3. The default value is 0 (M/D/Y).

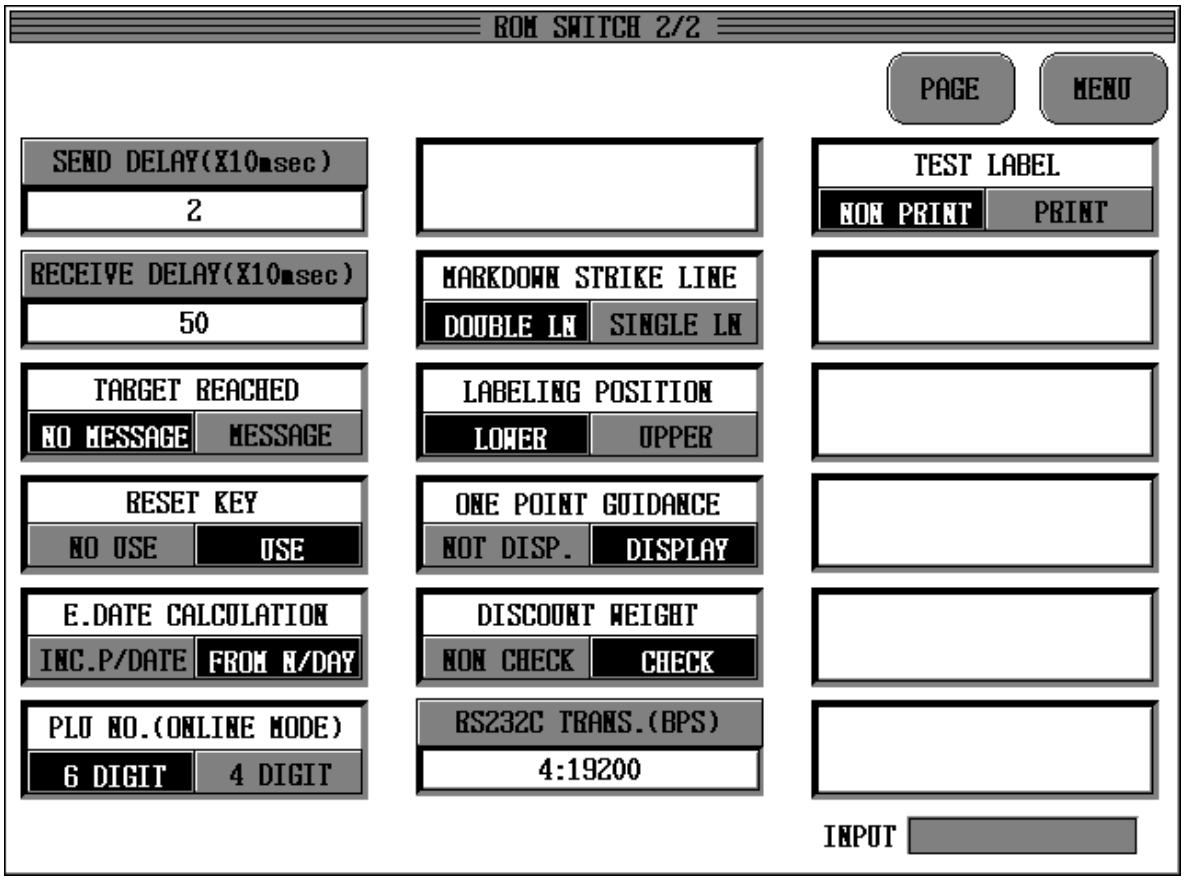
Price Calculation

1. The least significant digit is rounded for the price data after calculation is made.
2. Data range is from 0 to 4 (0 = no processing, 1 = drop, 2 = round up, 3 = round down, 4 = 05 round).
3. The default value is 0 (no processing).

Date Key Process (Packed Date/Expiry Date Temporary Change Switch)

1. The flag which is to be temporarily changed, packed date or expiry date, when the **[DATE KEY]** is pressed.
2. Data range is from 0 to 1 (0 = packed date, 1 = expiry date)
3. The default value is 0 (packed date).

4.5.2 ROM SWITCH SETTING 2/2



Delay Timer After Sending 1 Character in Data Sending/Receiving (IF) PC Mode

1. X10msec timer.
2. Data range is from 0 to 99.
3. Default value is 20msec.

Delay Timer Waiting for Sending After Receiving in Data Sending/Receiving (IF) PC Mode

1. X10msec timer.
2. Data range is from 0 to 99.
3. Default value is 500msec.

Message Display When the Instructed Number is Complete

1. Switch between display and no display of the instruction end confirmation message pop-up screen when the instruction is complete.
2. Default value is NO DISPLAY.

Software Reset Key Processing

1. Switch between use and no use of reset key.
2. Default value is USE that makes the reset key effective.

Switch Method for Calculating the Expiry Date from the Effective Period

1. Switch between INCLUDING TODAY and FROM THE NEXT DAY for calculating the expiry date.
2. Default value is INCLUDING TODAY.
3. **INC. P/DATE :** Including today
   FROM N/DAY: Calculation from the following day (DATE+n)

Switch the Number of Item Code Digits When the Master Machine is Accessed in Online Use

1. Default value:
   In master satellite specifications (AC-3000) line use, 6 digits.
   In store specifications (MSCU-4) line use, 4 digits

Selection of the Number of Price Deletion Lines

1. Selection of the number of price deletion lines to be printed on the label to strike-out the price before markdown is performed.
2. Default value is DOUBLE LN (2 lines).

Selection of Label Position (upper right/lower right)

1. Program the selection of label position when the auto-labeling function is used.
2. Default value is LOWER (lower right).

Selection of One Point Guidance Message Display

1. Select whether or not to display the one point guidance message on the normal screen for the operators reference.
2. Default value is DISPLAY.

Selection of Discount Price Necessary Weight Check Function

1. When the scale item is called up, and when the discount price is programmed, calculate the necessary weight from the unit and discount prices. Select valid or invalid, the function that activates at the point when the item weight on the scale reaches the predetermined weight.
2. **CHECK :** No activation until the necessary weight is reached.
   NON CHECK : Activation even when the weight is less than the required weight, and the error for less than discount price is displayed.
3. Default value is CHECK.

RS-232C Communication Baud Rate Programming

1. Program the baud rate for the RS-232C port.
2. The programmable data range is from 0 to 5. 0: 1200, 1: 2400, 2: 4800, 3: 9600, 4: 19200, 5: 38400.
3. Default value is 4: 19200 baud. .

Selection of Invalid Label Issue for Printing Confirmation

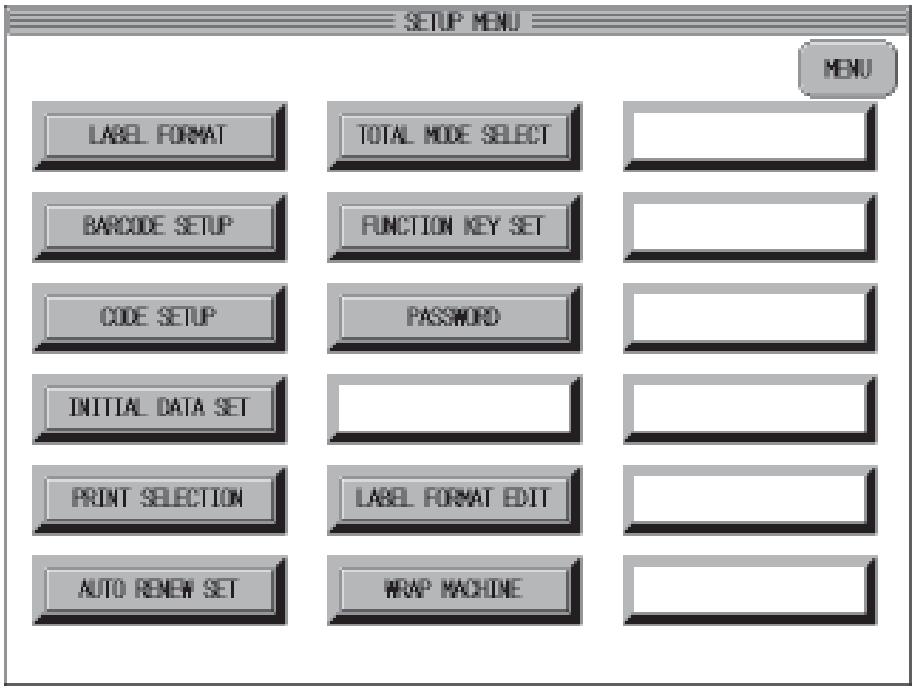
1. Selection whether or not to print the “X” mark on a label, except for the pricing label to be applied to the item.
2. Applicable labels for printing the “X” mark (image) are as follows:
   - Character line preview print label in program mode
   - Test print label in editing label format in setup mode
   - Sub-total/Total label in normal
   - Test print label by pressing the label batch key in normal mode
3. “X” mark is not printed unless the unit for printing “X” mark exists on the label format.
4. Default value is NON PRINT.

Chapter 5

SETUP MODE

Enterring SETUP MENU

1. In Normal Mode, press MENU key at right top on the screen, so that MAIN MENU will appear.
2. Press SETUP MODE on MAIN MENU, so that SETUP MENU will appear.

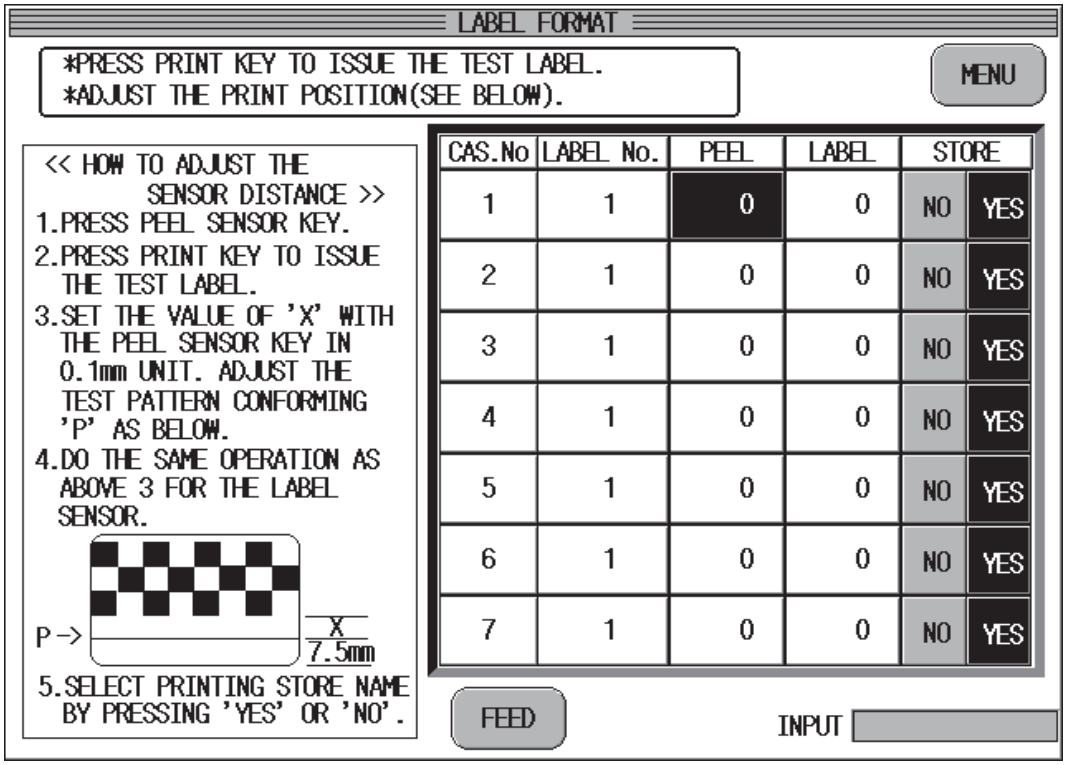


Return from SETUP MENU

1. In SETUP MENU, press MENU key at right top on the screen, so that MAIN MENU will appear.
2. Press NORMAL MODE on MAIN MENU, so that it will display Normal Mode.

5.1 LABEL FORMAT

Press the **[LABEL FORMAT]** button on the Setup Menu screen to display the following screen:


LABEL FORMAT
*PRESS PRINT KEY TO ISSUE THE TEST LABEL.
*ADJUST THE PRINT POSITION(SEE BELOW).
MENU
<< HOW TO ADJUST THE SENSOR DISTANCE >>
1.PRESS PEEL SENSOR KEY.
2.PRESS PRINT KEY TO ISSUE THE TEST LABEL.
3.SET THE VALUE OF 'X' WITH THE PEEL SENSOR KEY IN 0.1mm UNIT. ADJUST THE TEST PATTERN CONFORMING 'P' AS BELOW.
4.DO THE SAME OPERATION AS ABOVE 3 FOR THE LABEL SENSOR.
P->
X
7.5mm
5.SELECT PRINTING STORE NAME BY PRESSING 'YES' OR 'NO'.
CAS.No | LABEL No. | PEEL | LABEL | STORE
1 1 0 0 NO YES
2 1 0 0 NO YES
3 1 0 0 NO YES
4 1 0 0 NO YES
5 1 0 0 NO YES
6 1 0 0 NO YES
7 1 0 0 NO YES
FEED
INPUT

Cassette Number

(No actual cassette device is provided. The “Cassette” mentioned here indicates the print information group.)

1. Linked to the number registered in program mode 14 (cassette number registration).
2. The cassette numbers are fixed to 1 - 7.
3. The print information group consists of the label format number, peel sensor information, label sensor information, and store address and name print permission flag.

Setting the Label Format Number

Enter the label format number (1 - 9: ROM-fixed format, 10 or greater: user-defined format) and press the **[LABEL No.]** display field in the row of desired cassette numbers on the screen. The entered data is displayed in the format number display field. The **[PEEL]** data display field in the same line is highlighted. If a number that doesn’t exist is specified, an error will occur, causing the mis-operation buzzer to sound. Default value for all cassettes is “1”.

Setting the peel sensor and label sensor information
(distance setting for print position compensation)
Enter the compensation data and press the **[PEEL]** data display field or the **[LABEL]** data display field in the row of desired cassette numbers. The entered data is displayed in the peel sensor compensation data display field/label sensor compensation data display field that is highlighted. The highlighted item indicates that in which the sensor reads for test print. The range of data which can be entered is between 0 - 999. The default value for all cassettes is “0”.

Selecting the store name/address name print permission flag
Press either the **[YES]** or **[NO]** option buttons in the **[STORE]** field of the desired cassette number to perform selection. The selected item is then highlighted. The default value for all cassettes is “YES”.

[YES]: Prints the address and store name on the label
[NO]: Does not print the address or store name on the label, the label remains blank.

Test print
Press the **[PRINT]** key on the key sheet to perform test print by reading the format and sensor (peel or label) information whose corresponding buttons in the cassette number row are highlighted.

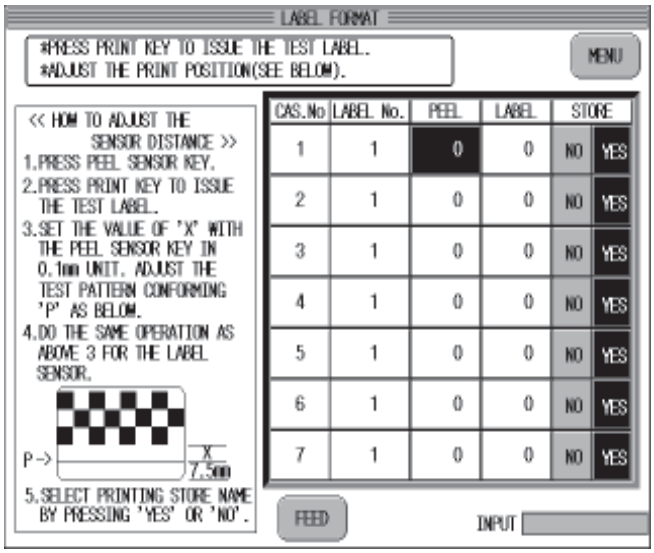
Test feed
Press the **[FEED]** button on the screen or press the **[PAPER FEED]** key on the key sheet to perform test feed by reading format and sensor (peel or label) information whose corresponding buttons in the cassette number row are highlighted.

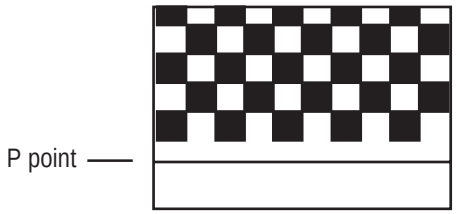
Note: Label gap fixed value is 2.5mm, therefore when the value needs to be changed, software modifications are required.

ADJUST PRINTING POSITION OF PEEL SENSOR AND LABEL SENSOR

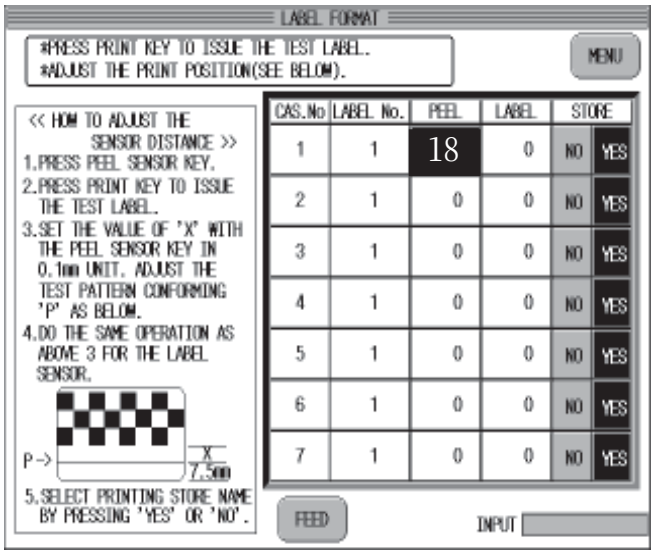
Peel sensor/Label sensor

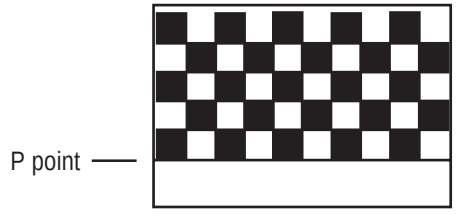
- Peel sensor setup is used to adjust the printing position when a normal label is issued.
- The label sensor setup is used to adjust the printing position when the barcode check label is issued.


LABEL FORMAT
*PRESS PRINT KEY TO ISSUE THE TEST LABEL.
*ADJUST THE PRINT POSITION(SEE BELOW).
MENU
<< HOW TO ADJUST THE SENSOR DISTANCE >>
1.PRESS PEEL SENSOR KEY.
2.PRESS PRINT KEY TO ISSUE THE TEST LABEL.
3.SET THE VALUE OF 'X' WITH THE PEEL SENSOR KEY IN 0.1mm UNIT. ADJUST THE TEST PATTERN CONFORMING 'P' AS BELOW.
4.DO THE SAME OPERATION AS ABOVE 3 FOR THE LABEL SENSOR.
P->
X
7.500
5.SELECT PRINTING STORE NAME BY PRESSING 'YES' OR 'NO'.
CAS.No LABEL No. PEEL LABEL STORE
1 1 0 0 NO YES
2 1 0 0 NO YES
3 1 0 0 NO YES
4 1 0 0 NO YES
5 1 0 0 NO YES
6 1 0 0 NO YES
7 1 0 0 NO YES
FEED
INPUT



When the gap from the “P” point is 1.8mm set the “P” sensor from 0 to 18.

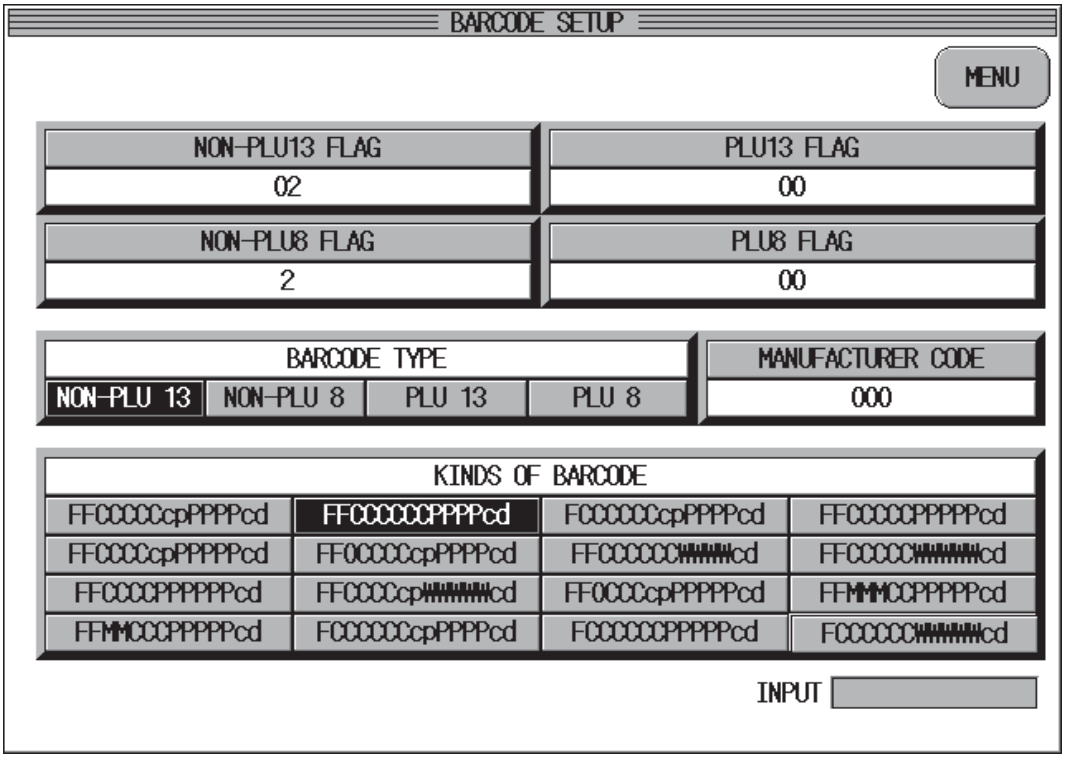

LABEL FORMAT
*PRESS PRINT KEY TO ISSUE THE TEST LABEL.
*ADJUST THE PRINT POSITION(SEE BELOW).
MENU
<< HOW TO ADJUST THE SENSOR DISTANCE >>
1.PRESS PEEL SENSOR KEY.
2.PRESS PRINT KEY TO ISSUE THE TEST LABEL.
3.SET THE VALUE OF 'X' WITH THE PEEL SENSOR KEY IN 0.1mm UNIT. ADJUST THE TEST PATTERN CONFORMING 'P' AS BELOW.
4.DO THE SAME OPERATION AS ABOVE 3 FOR THE LABEL SENSOR.
P->
X
7.500
5.SELECT PRINTING STORE NAME BY PRESSING 'YES' OR 'NO'.
CAS.No LABEL No. PEEL LABEL STORE
1 1 18 0 NO YES
2 1 0 0 NO YES
3 1 0 0 NO YES
4 1 0 0 NO YES
5 1 0 0 NO YES
6 1 0 0 NO YES
7 1 0 0 NO YES
FEED
INPUT



When “18” is entered, the gap will be narrowed down to the “P” point.

5.2 BARCODE SETUP

Press the **[BARCODE SETUP]** button on the Setup Menu screen to display the following screen:



NON-PLU 13-digit POS flag

1. Setting the flag data when the specified POS code system is NON-PLU13.
2. Referred to when the POS flag in the single commodity master is “0”.
3. The data range is 00 - 99.

Enter flag data and then press the **[NON-PLU13]** button on the screen or the data display field to set the data.

NON-PLU 8-digit POS flag

1. Setting the flag data when the specified POS code system is NON-PLU8.
2. Referred to when the POS flag in the single commodity master is “0”.
3. The data range is 0 - 9.

Enter flag data and then press the **[NON-PLU8]** button on the screen or the data display field to set the data.

PLU 13-digit POS flag

1. Setting the flag data when the specified POS code system is PLU13
2. Referred to when the POS flag in the single commodity master is “0”.
3. The data range is 00 - 99.

Enter flag data and then press the **[PLU13]** button on the screen or the data display field to set the data.

PLU 8-digit POS flag

1. Setting the flag data when the specified POS code system is PLU8.
2. Referred to when the POS flag in the single commodity master is “0”.
3. The data range is 00 - 99.

Enter flag data and then press the **[PLU8]** button on the screen or the data display field to set the data.

Barcode system

1. Press one of the **[BARCODE TYPE]** option buttons on the screen to select the system. The selected option button is highlighted.
2. This setting is valid when the barcode system (BARCODE selection) in the single commodity master is “REF”.

Barcode type

1. Press one of the **[KINDS OF BARCODE]** option buttons on the screen to select the type. The selected option button is highlighted.
2. The button name indicates the actual data configuration. (F: Flag, C: Code, cp: Check price, P: Price, W: Weight, cd: Check digit, M: manufacturer code, 0: Zero data)

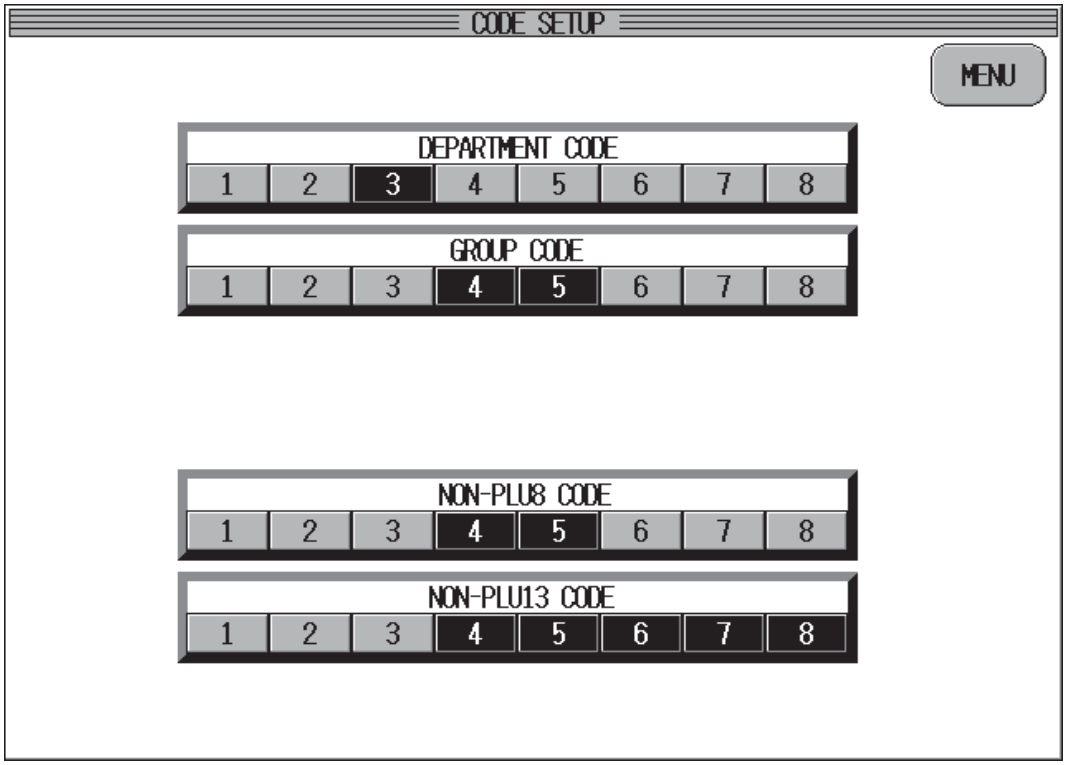
Manufacturer code

1. Setting the manufacturer code when it is included in the barcode type.
2. The data range is 000 - 999.

Enter code data and then press the **[MANUFACTURER CODE]** button on the screen or the data display field to set the data.

5.3 CODE SETUP

Press the **[CODE SETUP]** button on the Setup Menu screen to display the following screen:



Setting procedure

Press a button to enable the digit, the button will then be highlighted. Buttons pressed must be consecutive and their number must be smaller than the maximum number of digits.

Department code (DEPARTMENT CODE)

1. Specifies the start digit of the department code in the 8-digit commodity code.
2. The maximum number of digits is 4.

Group code (GROUP CODE)

1. Specifies the start digit of the group code in the 8-digit commodity code.
2. The maximum number of digits is 4.

NON-PLU 8-digit code (NON-PLU8 CODE)

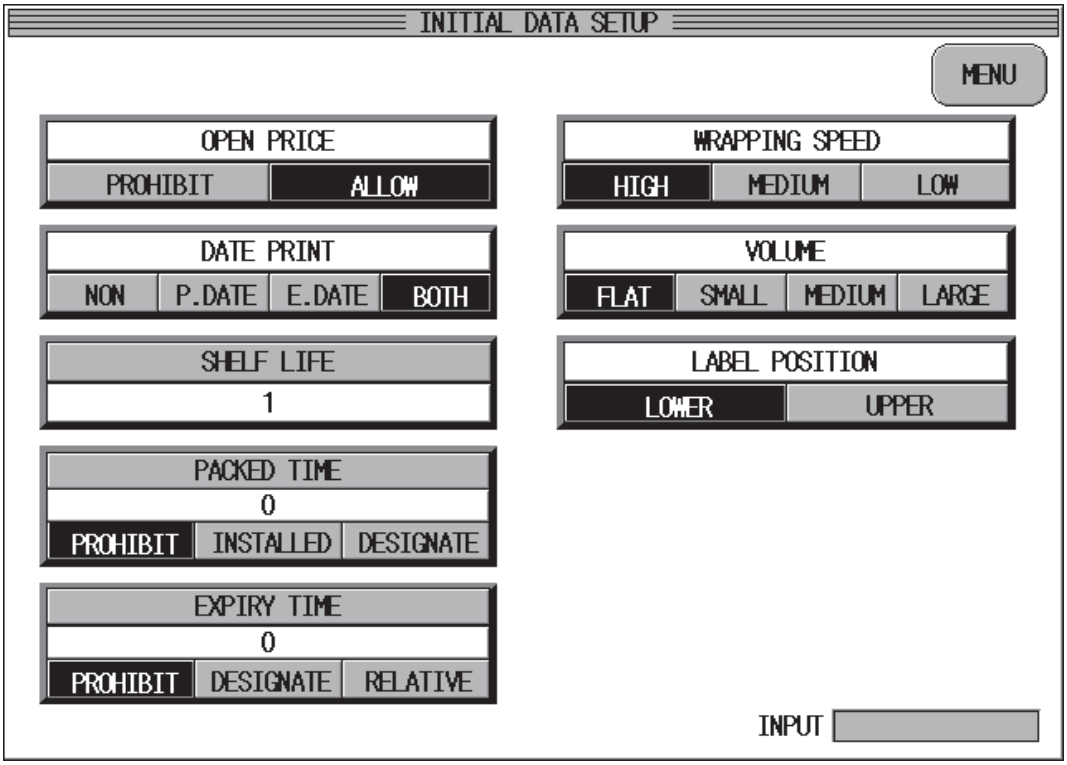
1. Specifies the start digit of the NON-PLU8-digit code in the 8-digit commodity code.
2. The maximum number of digits is 8. However, at present, the number of digits that can be actually printed as a barcode in the current barcode types is 2. If a value larger than the number of the specified barcode type code digits is specified, print is performed from the end of the data according to the number of digits.

NON-PLU13 code (NON-PLU13 CODE)

1. Specifies the start digit of the NON-PLU13 code in the 8-digit commodity code.
2. The maximum number of digits is 8. However, at present, the maximum number of digits that can be actually printed as a barcode in the current barcode types is 6. If a value larger than the number of the specified barcode type code digits is specified, print is performed from the end of the data according to the number of digits.

5.4 INITIAL DATA SET

Press the **[INITIAL DATA SET]** button on the Setup Menu screen to display the following screen:



Open Price Select Reference Data Programming

1. The data will become effective when the REFERENCE of the OPEN PRICE flags within the item master is selected.
2. Programmed by pressing the desired button under the OPEN PRICE selection area. Selected item is then highlighted.
3. The default value for reference data is ALLOW.
4. Each item button indicates the following:
   PROHIBIT : Prohibit temporary change of selling price.
   ALLOW : Allow temporary change of selling price.

Packed Date/Expiry Date Selection Reference Data Programming

1. The data will become effective when the REF. of the DATE PRINT flags within the item master is selected.
2. Programmed by pressing the desired button under the DATE PRINT selection area. Selected item is then highlighted.
3. The default value for reference data is BOTH.
4. Each item button indicates the following:
   NON: Prohibit packed date (expiry date) print.
   P.DATE: Print only packed date.
   E.DATE: Print only expiry date.
   BOTH: Print both packed date and expiry date.

Expiry Period Reference Data Programming

1. The data will become effective when the REF. of the DATE PRINT flags within the item master is selected.
2. Programmed by pressing the SHELF LIFE button or the PERIOD DATA selection area after the expiry date data is entered.
3. Programmable data range is from 1 to 999 (1: today).
4. The default value of reference data is 1 (today).

Packed Time Print Select Reference Data Programming

1. The data will become effective when the REFERENCE of the PACKED TIME flags within the item master is selected.
2. Programmed by pressing the desired button under the PACKED TIME selection area. Selected item is then highlighted.
3. The default value of reference data is PROHIBIT.
4. Data entry is only possible when DESIGNATE is selected. Press the PACKED TIME button or the PACKED TIME selection area after the packed date data is entered. Each item indicates the following:
   PROHIBIT: Prohibit packed time print (0).
   INSTALLED: System clock (0).
   DESIGNATE: Programmed time (0:00 to 23:59)

Expiry Time Print Select Reference Data Programming

1. The data will become effective when the REFERENCE of the EXPIRY TIME flags within the item master is selected.
2. Programmed by pressing the desired button under the EXPIRY TIME selection area. Selected item is then highlighted.
3. The default value of reference data is PROHIBIT.
4. Data entry is only possible when DESIGNATE or RELATIVE is selected. Press the EXPIRY TIME button or the EXPIRY TIME selection area after the expiry date data is entered. When RELATIVE is selected, the unit “min” is displayed at the side of the data. Each item indicates the following:
   PROHIBIT: Prohibit expiry time print (0).
   DESIGNATE: Programmed time (0:00 to 23:59)
   RELATIVE: Relative time from the packed time (0 to 9999 min.)

Wrapping Capability Default Value Data Programming

1. Programming of the default value data when new item registration is made.
2. Programmed by pressing the desired button under the WRAPPING SPEED selection area. Selected item is then highlighted.
3. The default value is HIGH.
4. Each item indicates the following:
   HIGH: Infeed conveyor high speed.
   MEDIUM: Infeed conveyor medium speed.
   LOW: Infeed conveyor low speed.

Filling Height Default Value Data Programming

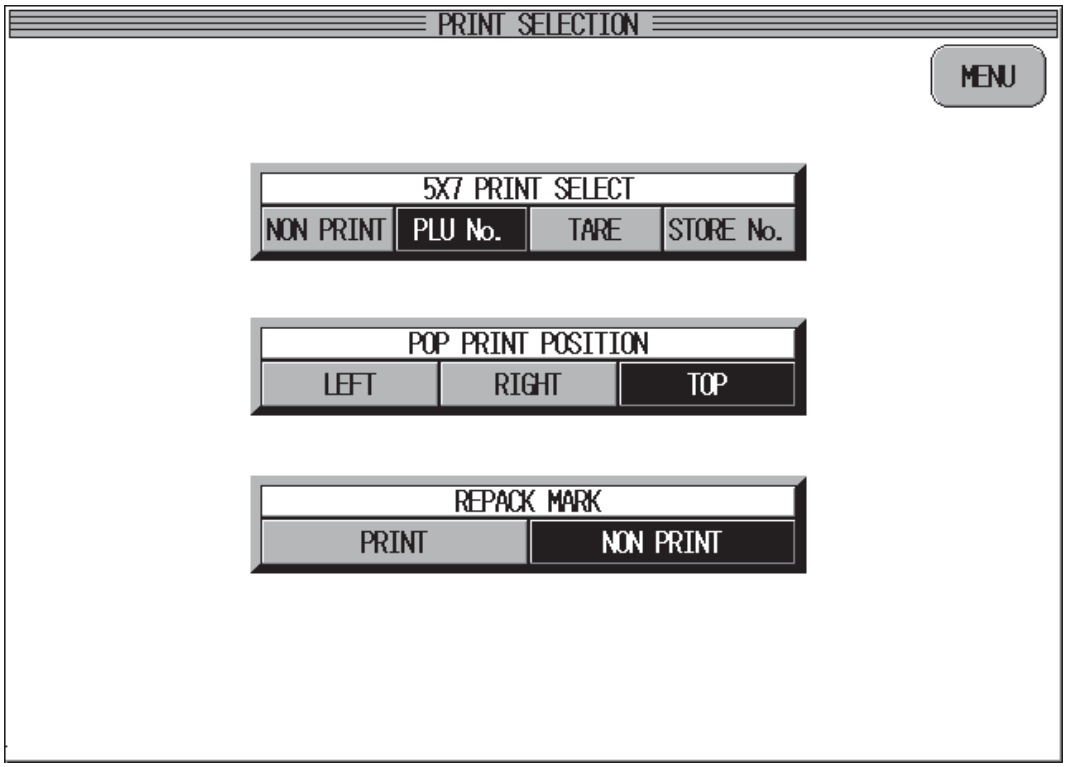
1. Programming of the default value data when new item registration is made.
2. Programmed by pressing the desired button under the VOLUME selection area. Selected item is then highlighted.
3. The default value is FLAT.
4. Each item indicates the following:
   FLAT: No filling.
   SMALL: Small filling.
   MEDIUM: Medium filling.
   LARGE: Large filling.

Label Position Default Value Data Confirmation

1. Confirmation of the default value data when new item registration is made.
2. ROM switch program information is displayed.
3. Changing of the data is impossible.
4. Each item indicates the following:
   LOWER: Lower right position
   UPPER: Upper right position.

5.5 PRINT SELECTION

Press the **[PRINT SELECTION]** button on the Setup Menu screen to display the following screen:



Programming a 5X7 print item

Press one of the **[5X7 PRINT SELECT]** option buttons on the screen to perform the setting. The selected setting is then highlighted. The default value is PLU No.

Selecting the POP print location

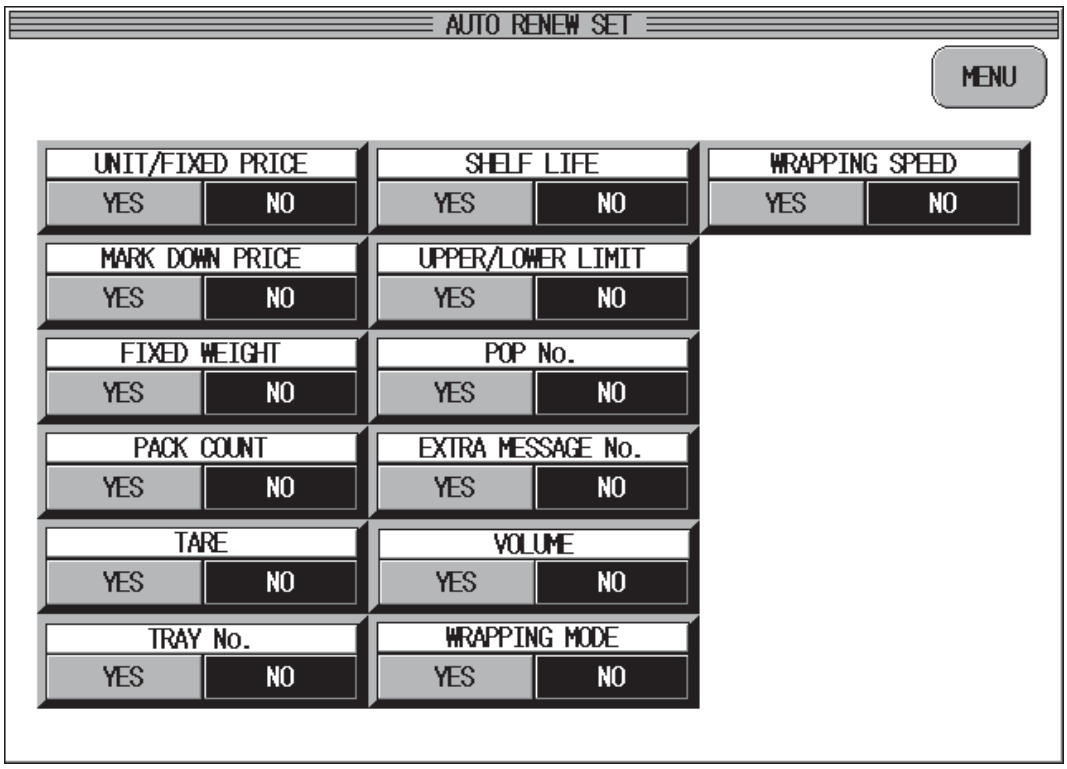
Select where the POP message will be printed, relative to the commodity name (right, left, or above), by pressing one of the **[POP PRINT POSITION]** option buttons on the screen to perform the setting. The selected setting is then highlighted. The default value is RIGHT.

Selecting Repack Mark Print

Selecting whether or not to print repack mark on the label when repack operation is performed in normal mode. Setup is performed by pressing the selected item button. The highlighted item indicates that the selection was made. The default value is NO PRINT.

5.6 AUTO RENEW SET

Press the **[BARCODE SETUP]** button on the Setup Menu screen to display the following screen:



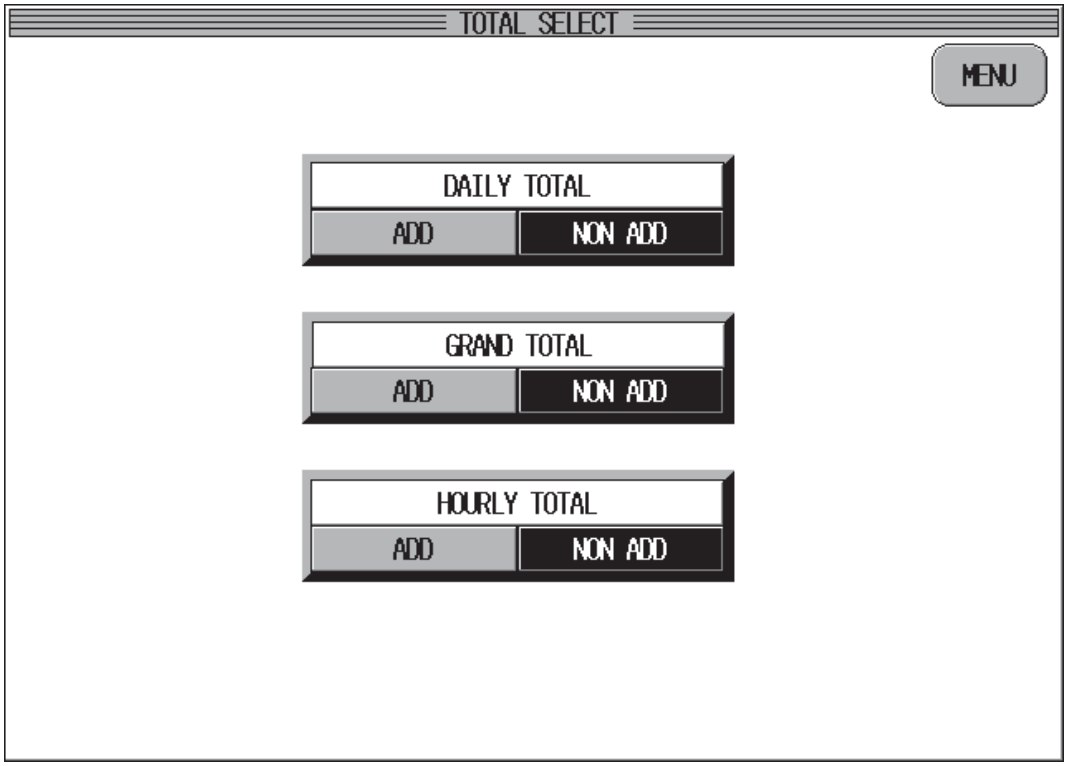
Selecting the automatic renew permission

For items to which **[YES]** is selected, data temporarily changed in normal mode is used to update the single commodity master, without the modification of the data.

Press one of the **[YES/NO]** option buttons on the screen for each item. The selected item is then highlighted. If **[UNIT/FIXED]** price is set to **[YES**], automatic update in the measuring mode is also enabled. The default value of all items is NO.

5.7 TOTAL SELECT

Press the **[TOTAL MODE SELECT]** button on the Setup Menu screen to display the following screen:



Selection of Daily Total Addition

1. Programming to select whether or not to add the actual data to the daily total.
2. Programmed by pressing **DAILY TOTAL** addition selectable items. Selected item is then highlighted.
3. Default value is NON ADD.

Selection of Grand Total Addition

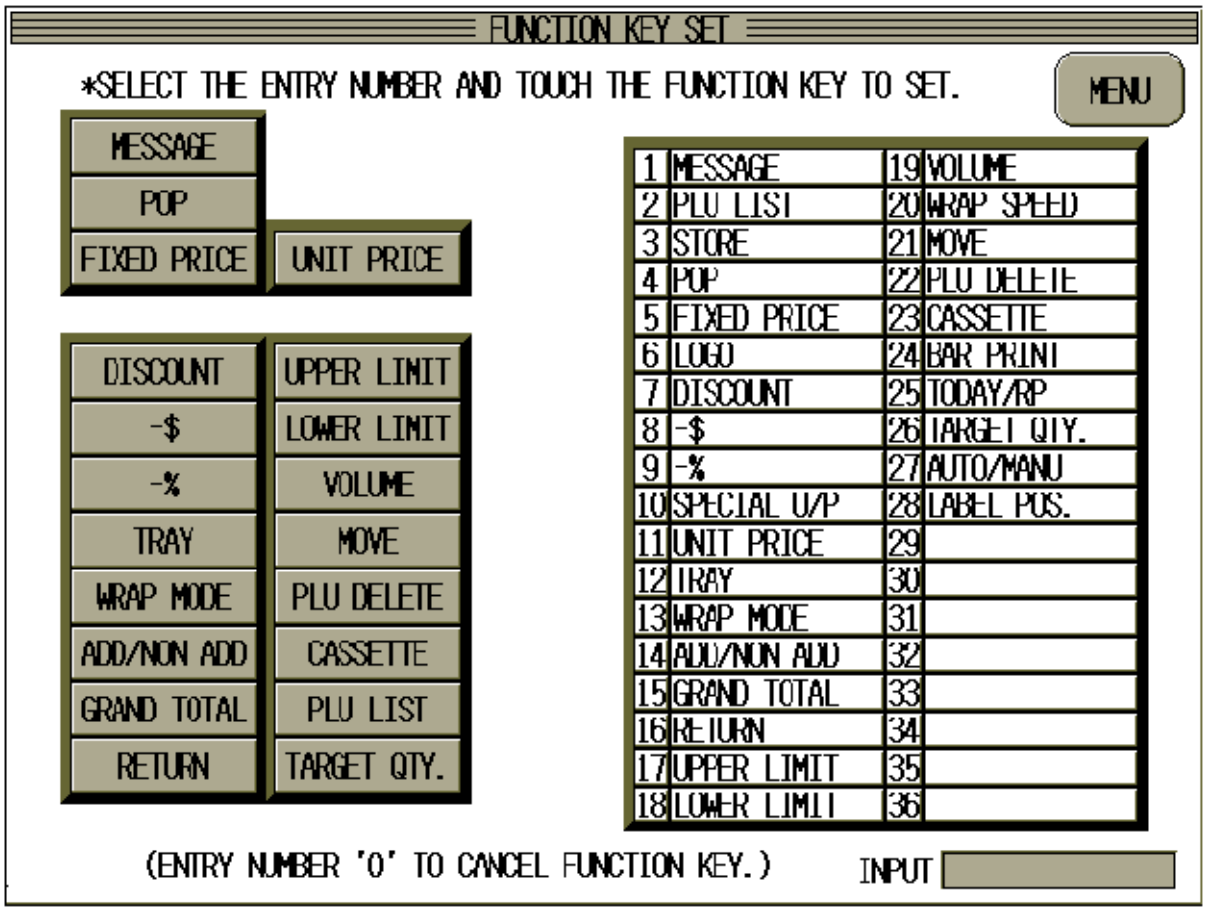
1. Programming to select whether or not to add the actual data to the grand total.
2. Programmed by pressing **GRAND TOTAL** addition selectable items. Selected item is then highlighted.
3. Default value is NON ADD.
4. When ADD is selected, ADD is automatically applied to the daily also.

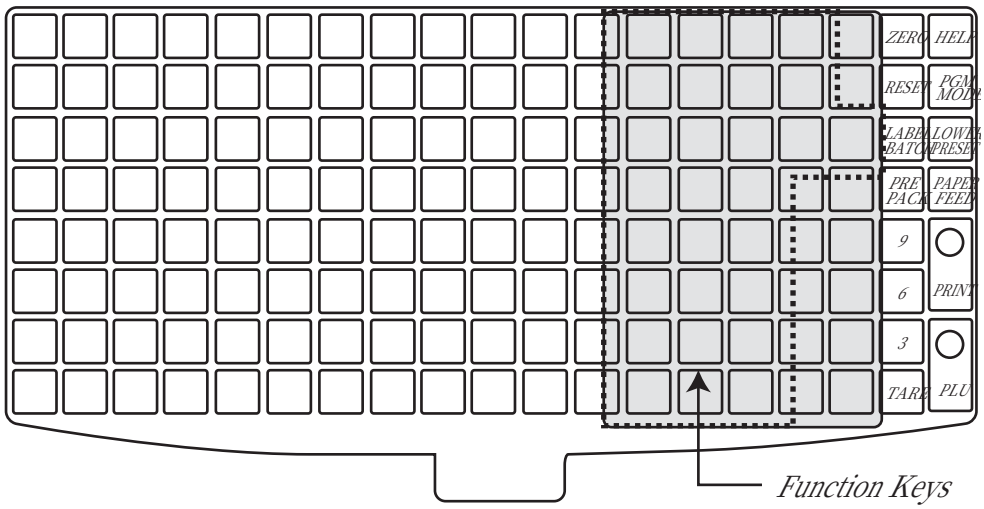
Selection of Hourly Total Addition

1. Programming to select whether or not to add the actual data to the hourly total.
2. Programmed by pressing **HOURLY TOTAL** addition selectable items. Selected item is then highlighted.
3. Default value is NON ADD.

5.8 FUNCTION KEY SET

Press the **[FUNCTION KEY SET]** button on the Setup Menu screen to display the following screen:





Setting the preset function keys

Enter a function key type number in the list on the right hand side of the screen (fixed to 1 to 36) and press the desired function key to assign it to the number. The name of the pressed button is displayed as the name of the function key for the entered number. The setting is now completed.

Clearing the setting of the preset function key

Enter “0” or a number whose function key name field is blank in the list on the right hand side of the screen. Then press the preset function key button to be cleared. A blank button name field indicates that the button is cleared (no function key assigned).

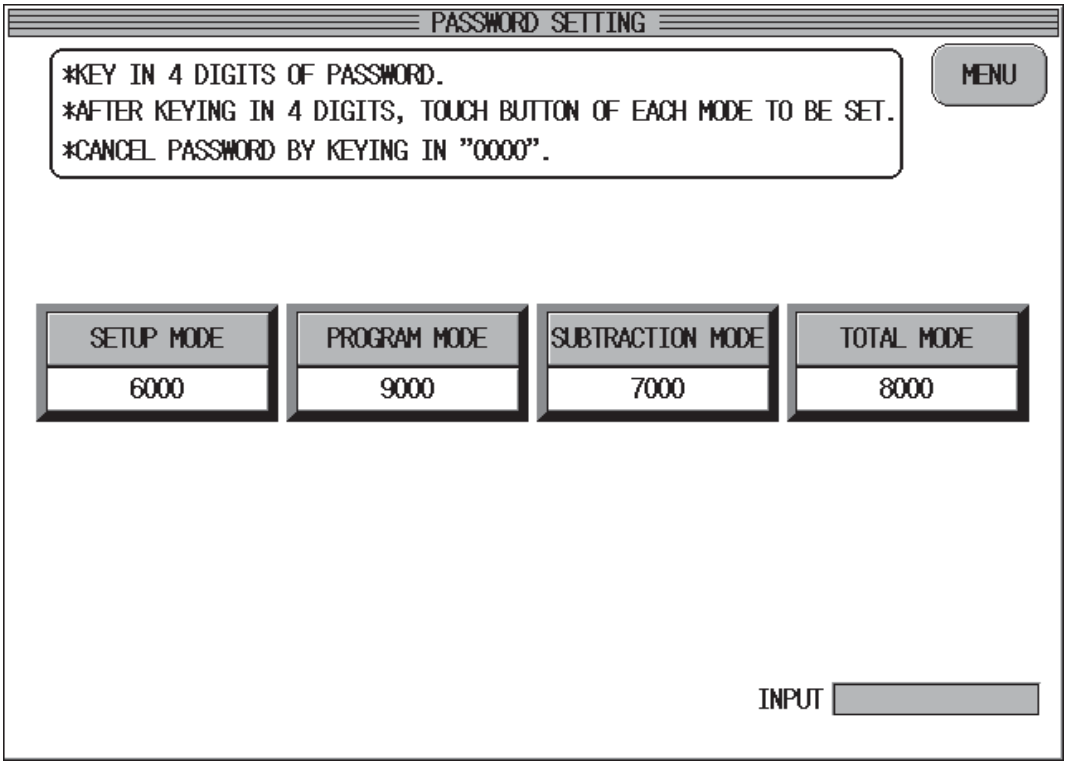
Location of the preset function keys

The top four buttons are used for PF1 to PF4 of the AC-3000 series membrane key; the bottom 16 buttons are used for the two rightmost columns of the preset key field (preset function key field in OMNi-3000).

The upper left buttons show the initial setting of the preset function keys.

5.9 PASSWORD SETTING

Press the **[PASSWORD]** button on the Setup Menu screen to display the following screen.



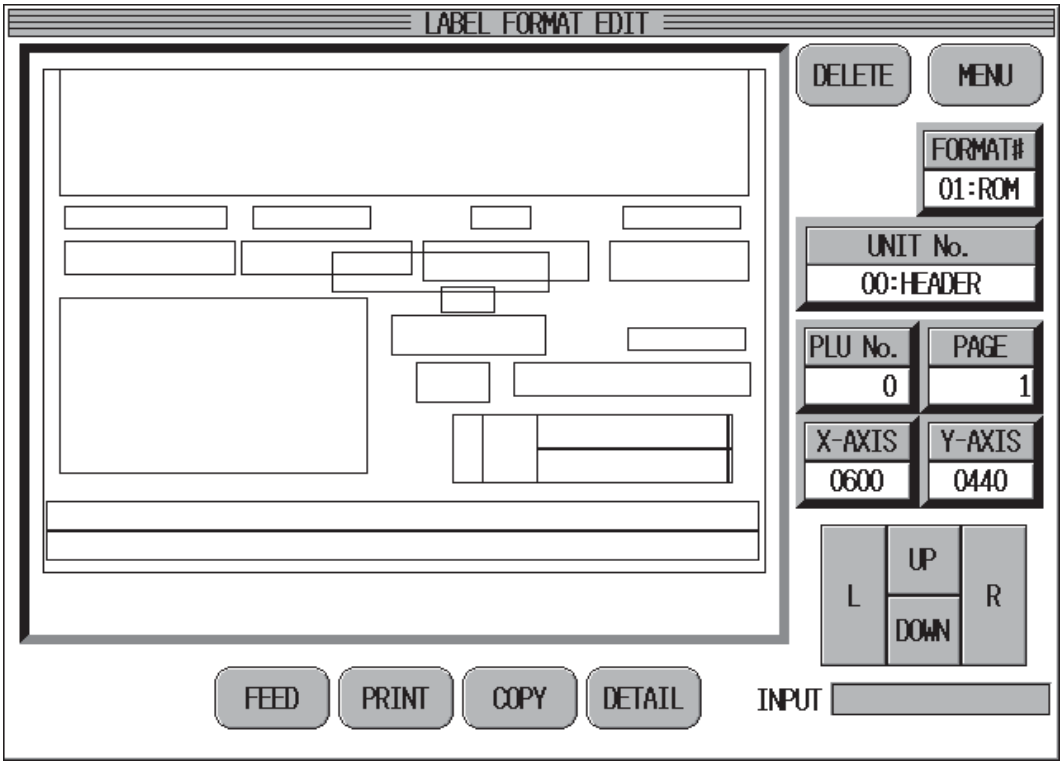
Setting the password

1. Always use 4 digits as a password (0 also occupies 1 digit).
2. Enter a 4-digit number and then press the desired mode button or number display field to set the password.
3. Specify 0000 to clear a password.
4. Setting the same password for several modes is prohibited.
5. A fixed password is provided in setup mode to allow access even if the operator forgets the setup mode password.

5.10 LABEL FORMAT EDIT

5.10.1 FORMAT CHANGE

Press the **[LABEL FORMAT EDIT]** button on the Setup Menu screen to display the following screen:



[FORMAT#] button/PLU key
Enter the format number to be edited and then press the **[FORMAT#]** button to load the label format. Format numbers 1 to 9 are ROM fixed-format and cannot be edited (saved). Use them to check the format or as copy-source format.
Five format numbers, 10 to 14, are used as E2ROM format and can be created and edited.

[UNIT No.] button and field
Press the **[UNIT No.]** button (if a number has been entered, it is dealt as the unit number) to change the unit number. At the same time, the frame of the unit is displayed in thick lines to clarify which unit is selected now.

PLU number button and field
Loads the commodity name for test print (PRINT button/key).

[PAGE] button and field (not supported)
Press the **[PAGE]** button on the screen to switch between normal and total label.

[X-AXIS], [Y-AXIS] button and field
Enter a number and then press the **[X-AXIS]** or **[Y-AXIS]** button to specify the print start position for each unit. **[UNIT No.] 00 (HEADER)** indicates the label size.

[L], [R], [UP], [DOWN] button
Press **[L**], **[R**], **[UP**], **[DOWN]** buttons on the screen to move the print position.

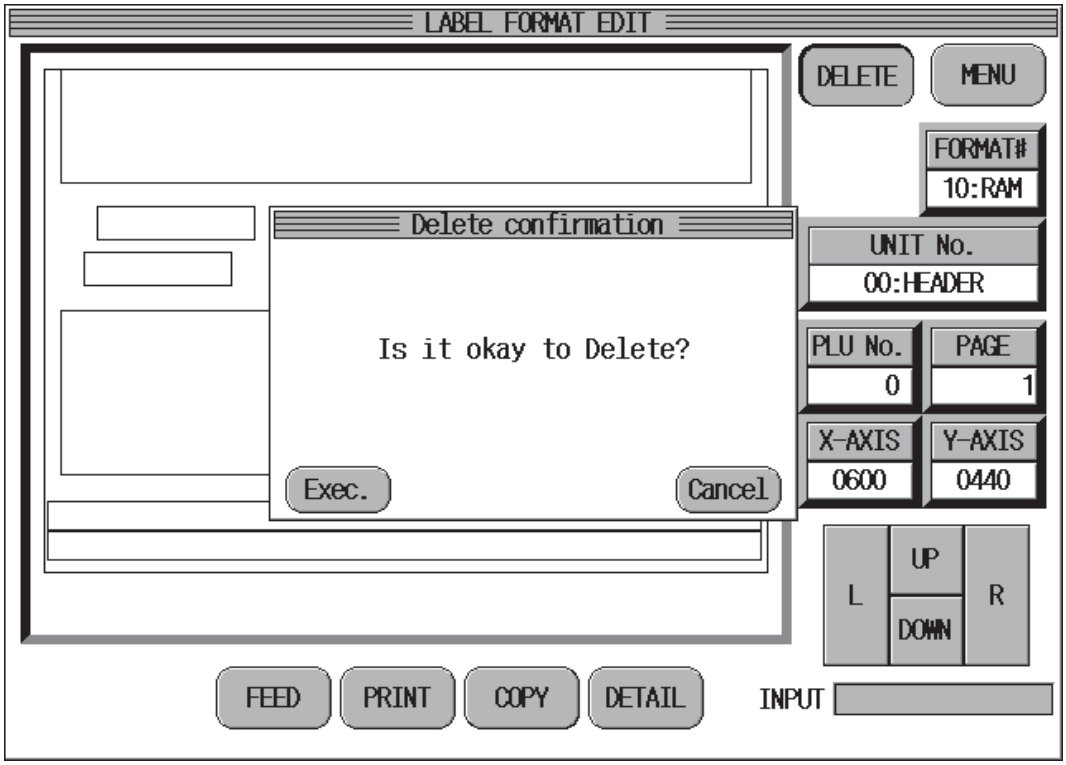
[FEED] button/key
According to the loaded (created) label format number, test feed print is performed.

[PRINT] button/key
Press the **[PRINT]** button on the screen, when a PLU number has been loaded, to perform test print according to the loaded (created) label format number

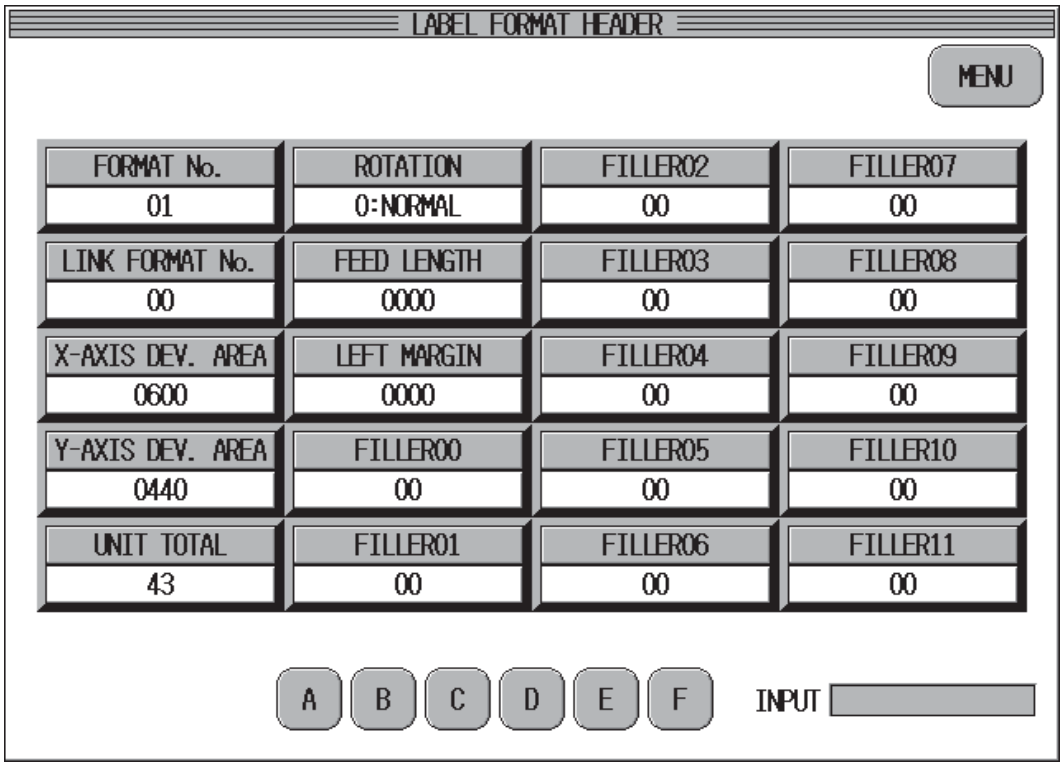
[COPY] button
Enter a number and then press the **[COPY]** button on the screen to overwrite the format currently loaded by the format data for the entered number

[DETAIL] button
Press the **[DETAIL]** button on the screen to display the detail edit screen for each unit.

[DELETE] button
Press the **[DELETE]** button on the screen. The deletion confirmation dialog box appears to confirm the deletion of the loaded format data (see the figure below).



5.10.2 LABEL FORMAT HEADER EDIT



[LINK FORMAT No.] button and field
If there is a format linked to the normal label, specify the format number

[X-AXIS DEV. AREA] button and field
Specify the landscape length of the label (in 0.1 mm unit).

[Y-AXIS DEV. AREA] button and field
Specify the portrait length of the label (in 0.1 mm unit, excluding gap between labels).

[UNIT TOTAL] button and field
Specify the number of all units used.

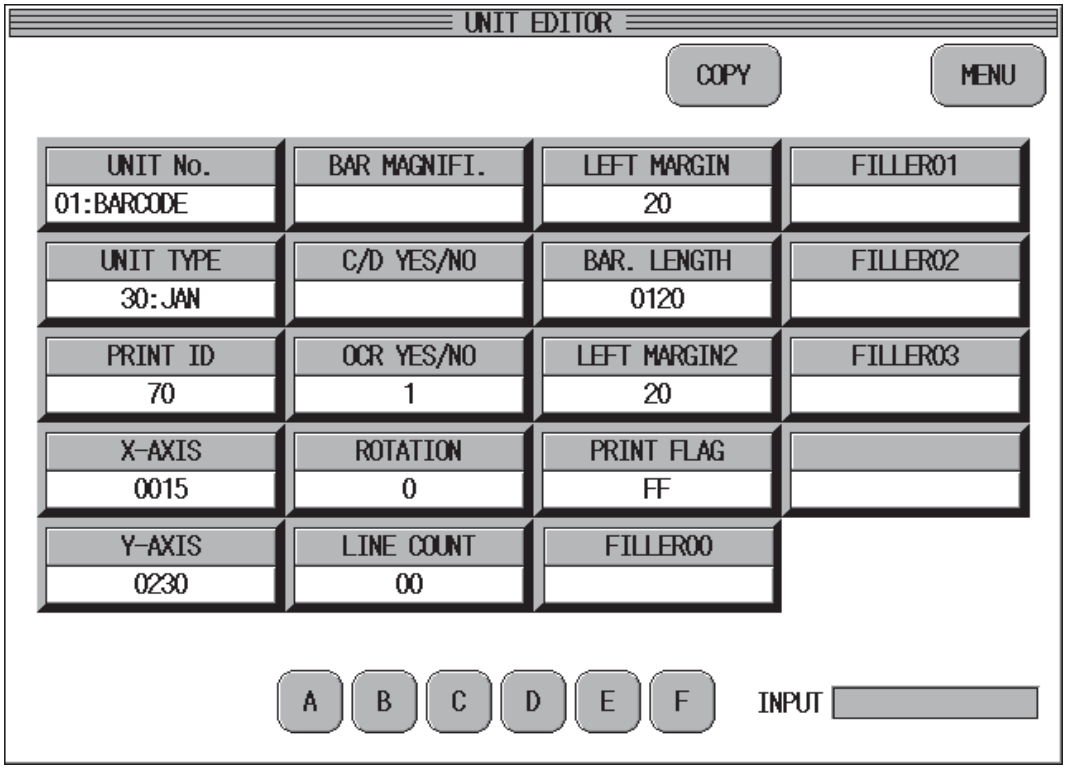
[ROTATION] button and field
See “Rotation Process” section.

[FEED LENGTH] button and field
Not supported

[LEFT MARGIN] button and field
Not supported

5.10.3 FORMAT EDIT FOR EACH UNIT

n Barcode Unit



[UNIT No.] button and field
Press the **[UNIT No.]** button on the screen to increment the unit number. The **[BEFOR PRINT]** unit is used as a blank unit. In other words, to create (add) a new unit, copy the desired unit number into the unit whose unit number is **[BEFOR PRINT]** (using COPY button).

[UNIT TYPE] button and field
Select the unit type. See the “Unit Type Selection Screen” section.

[PRINT ID] button and field
Select the print ID. See the “Print ID Selection Screen” section.

[X-AXIS] button and field
Specify the print start X coordinate (enter a decimal number in 0.1 mm unit) for each unit.

[Y-AXIS] button and field
Specify the print start Y coordinate (enter a decimal number in 0.1 mm unit) for each unit.

[OCR YES/NO] button and field
Select whether OCR print is enabled/disabled.

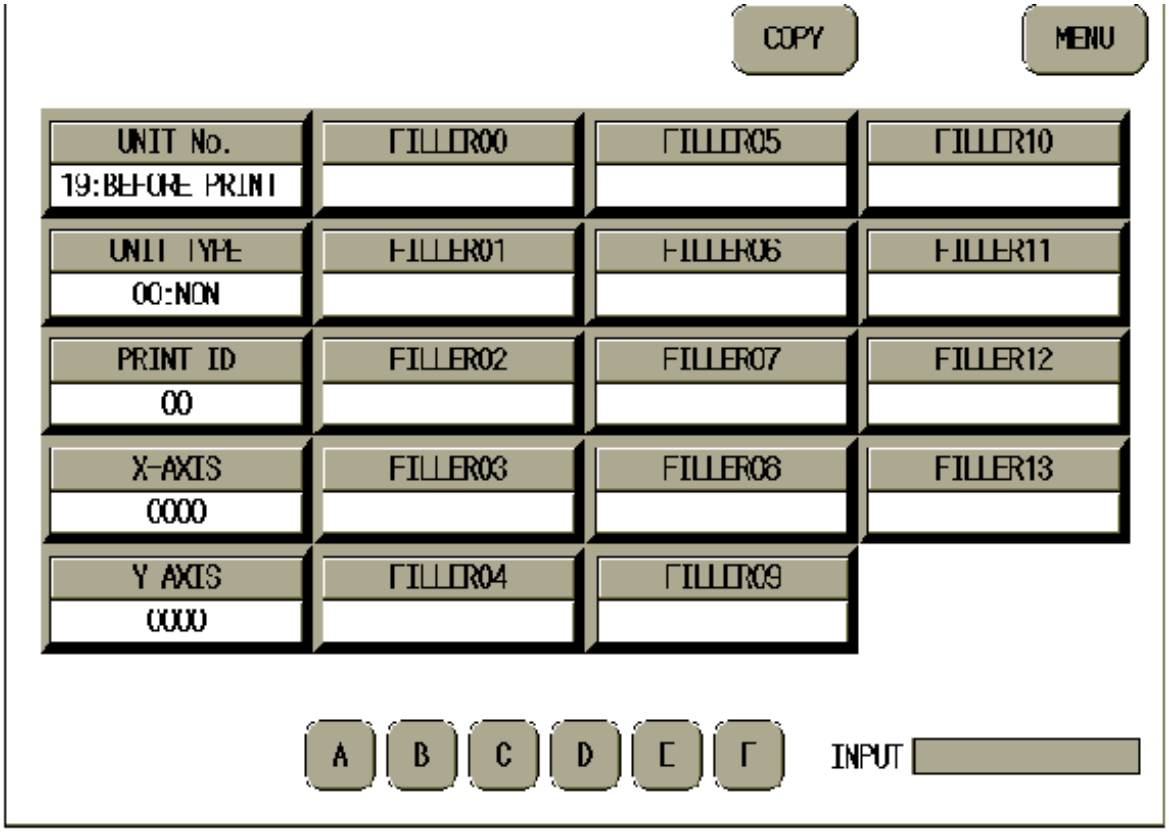
[LINE COUNT] button and field
Not used

[LEFT MARGIN] button and field
Specify the left margin (enter a decimal number in 0.1 mm unit).

[BAR. LENGTH] button and field
Specify the line length of the barcode (enter a decimal number in 0.1 mm unit).

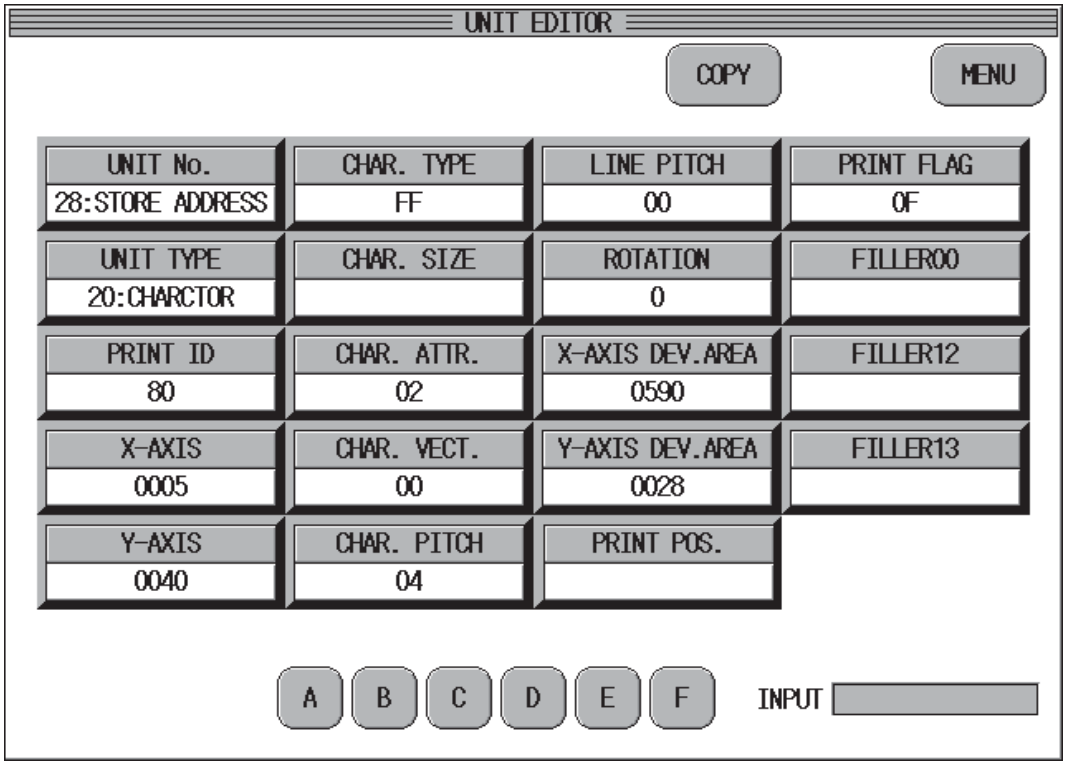
[PRINT FLAG] button and field
Not used

n Reserved Unit



Reserved for new units.

n Variable Character String Unit



[CHAR. TYPE] button and field
Specify the character type. See the “Character Type Selection Screen” section.

[CHAR. SIZE] button and field
Not specified.

[CHAR. ATTR] button and field
Specify the character attribute. See the “Character Attribute Selection Screen” section.

[CHAR. VECT.] button and field
Specify the print direction. See the “Character Print Direction Selection Screen” section.

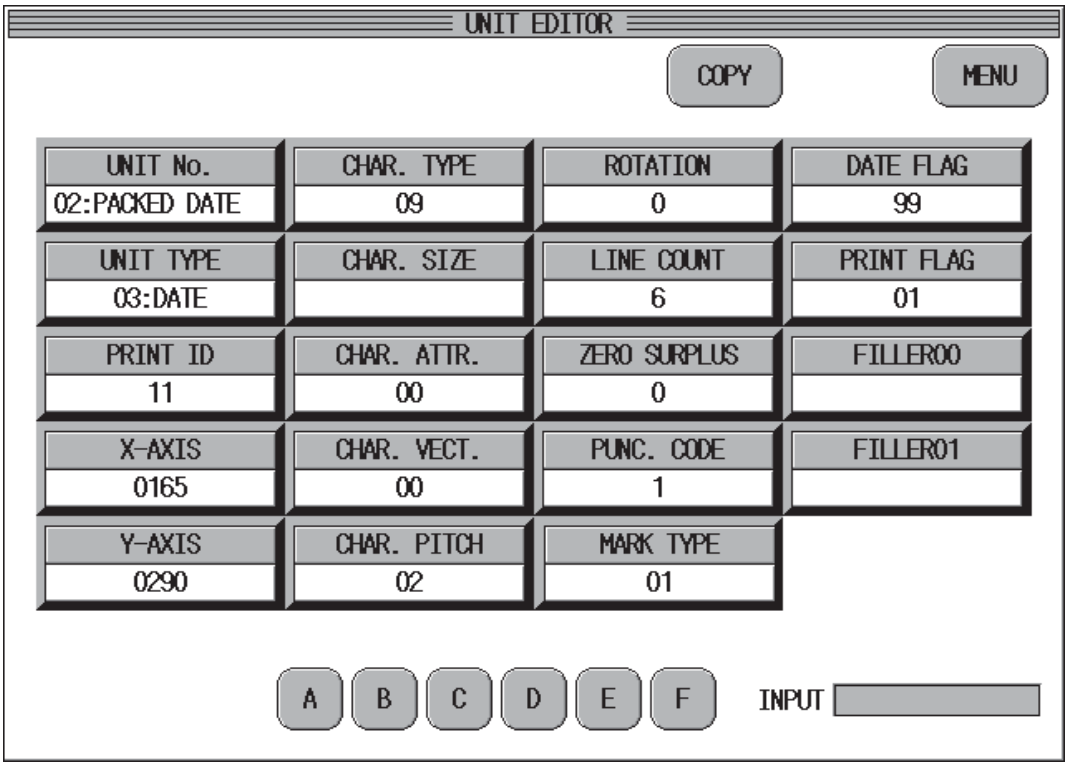
[CHAR. PITCH] button and field
Specify the pitch between characters (enter a decimal number in 0.1 mm unit).

[LINE PITCH] button and field
Specify the pitch between lines (enter a decimal number in 0.1 mm unit).

[PRINT POS.] button and field
Not used

[PRINT FLAG] button and field
Specify the issue flag.

n Date Unit



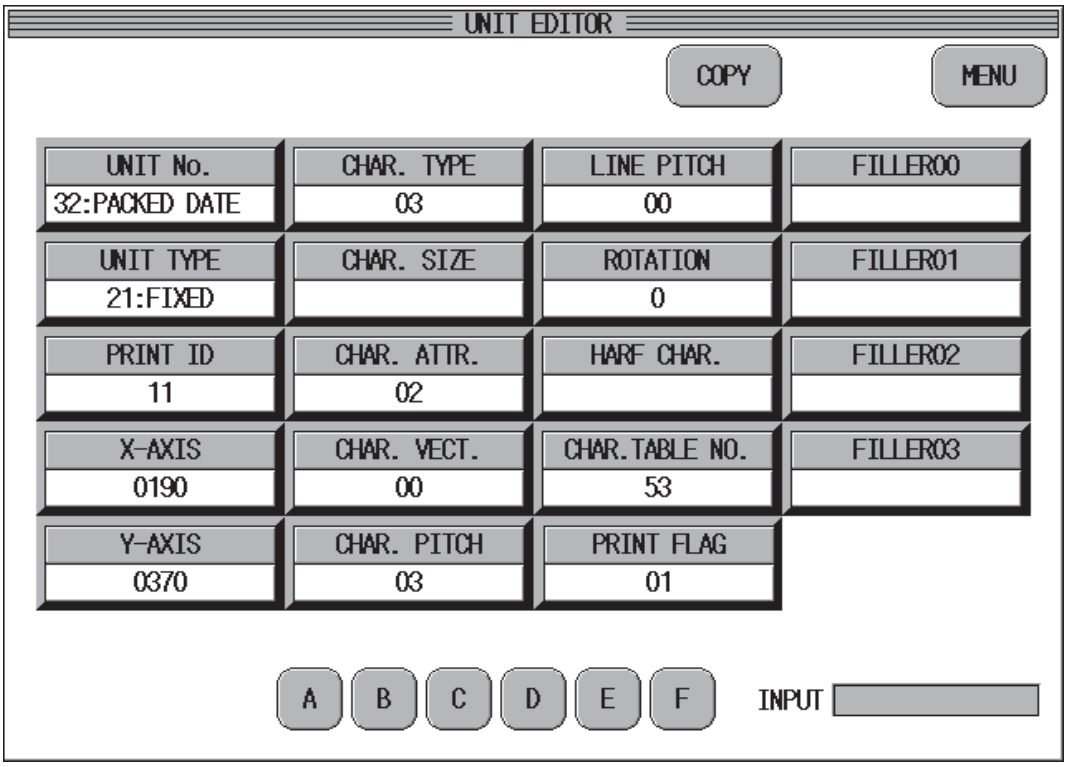
[ZERO SUPPR.] button and field
Specify the number of zero-suppressed digits.

[PUNC. CODE] button and field
Specify the separator. See the “Post-Data/Pre-Data Symbol Selection Screen” section.

[MARK TYPE] button and field
Specify the month format in the date print (number or English). See the “Date Order Selection Screen” section.

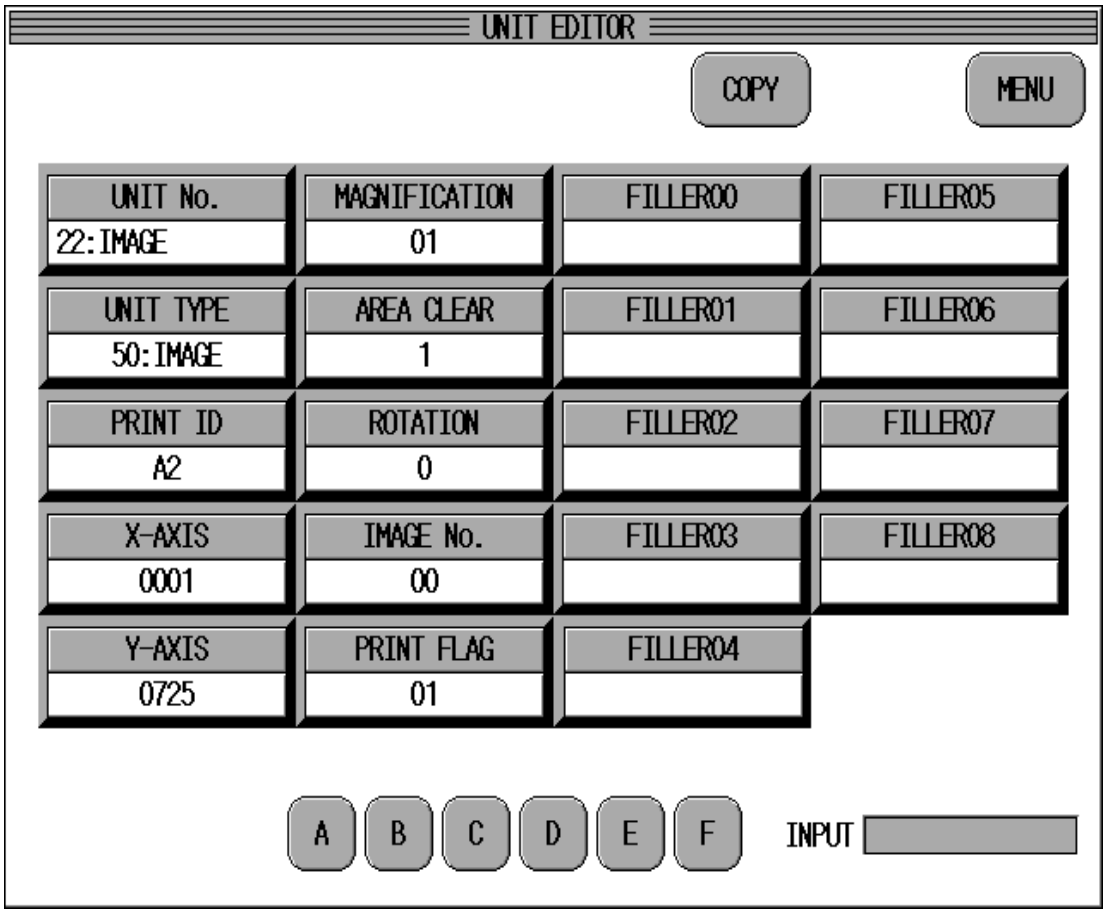
[DATE FLAG] button and field
Specify the date print format. See the “Month Print Selection Screen” section.

n Fixed Character String Unit



[CHAR. TABLE NO.] button and field
Specify the character number using the fixed character string table (ROM fixed-format).

n **Image Unit**



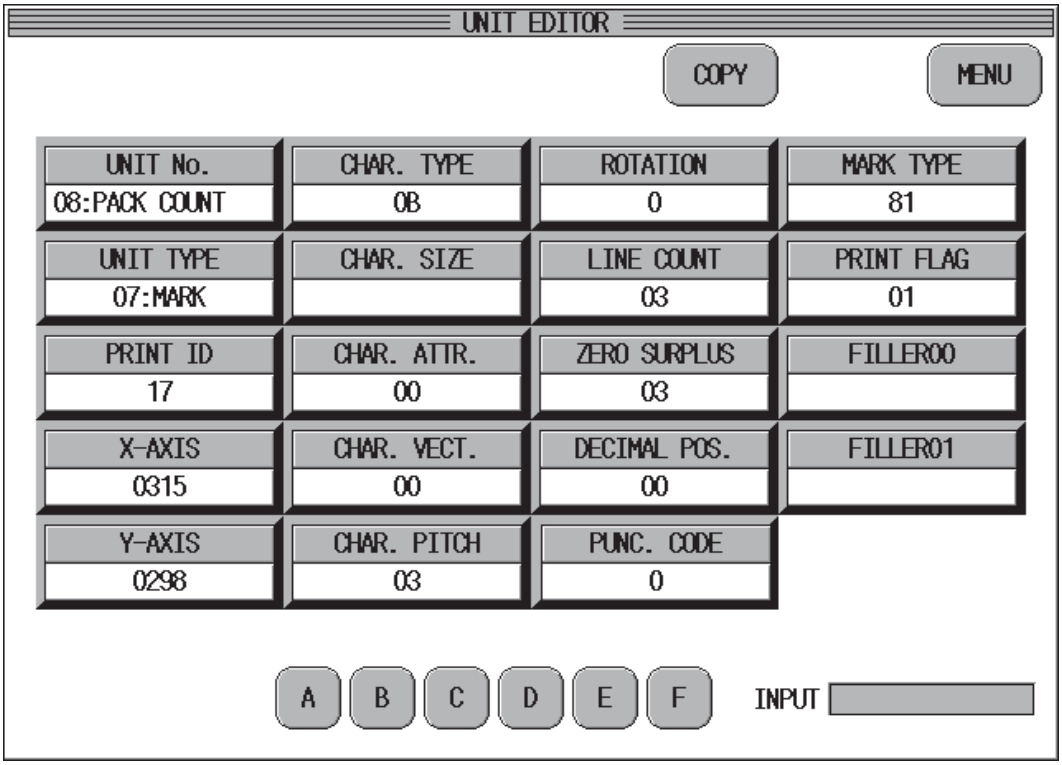
[X-AXIS] button and field
Specify the print start X coordinate for a unit (enter a decimal number in 0.1 mm unit). If data is 9999, the setting is dealt as a target of special expansion into the commodity name field.

[MAGNIFICATION] button and field (not supported)
Specify the magnification of the image data.

[FIELD CLEAR] button and field
Specify whether the image expansion field is cleared before expanding the image data.

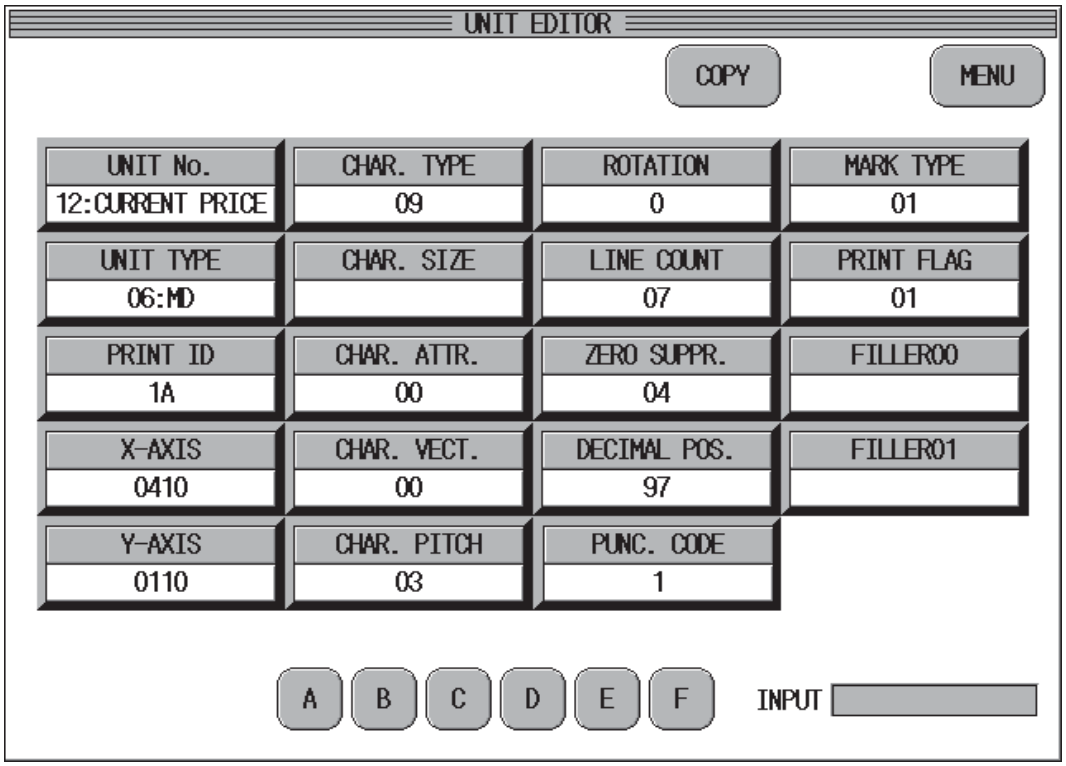
[IMAGE No.] button and field
To print format-fixed image, specify the number of the image.

n Symbol Number Unit

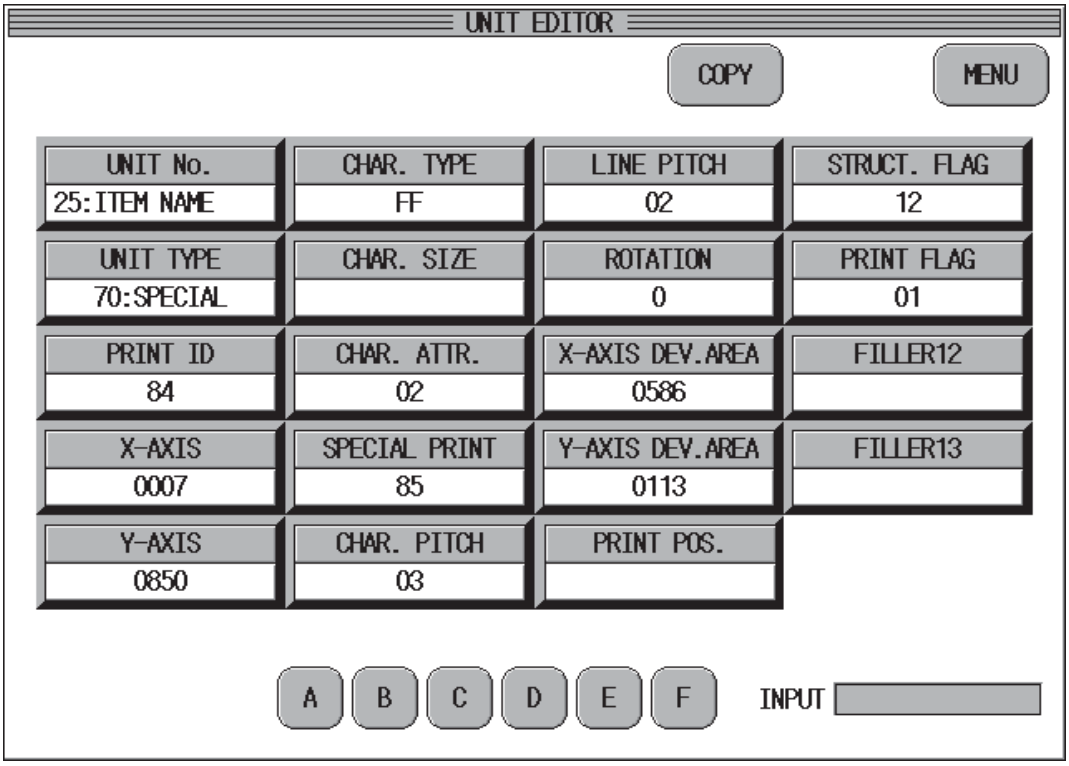


[MARK TYPE] button and field
Specify a number of the character that is added to numeral data (excluding the date) at the beginning and the end of the data. See the “Post-Data/Pre-Data Symbol Selection Screen” section.

n Pre-Discount Price Unit



n

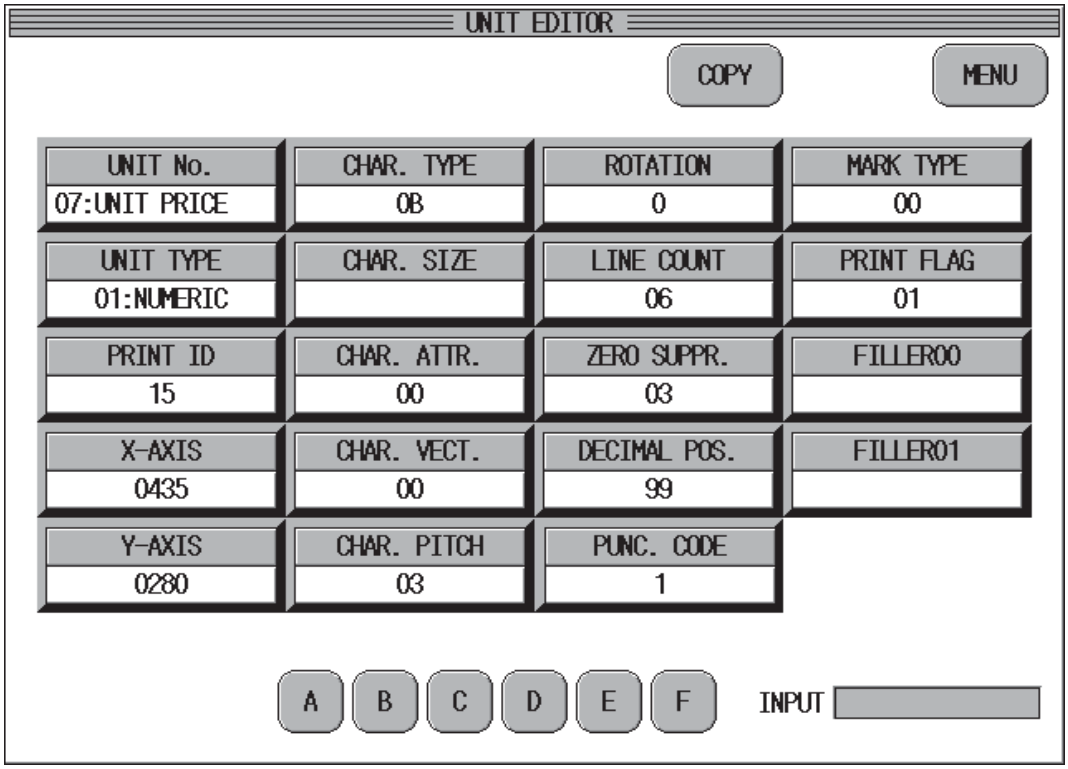


[SPECIAL PRINT] button and field
Specify the special expansion flag in the commodity name field. (The system controls the permission to combine components, POP, register code, commodity name, message, etc. by bit. 1st bit: Commodity name, 3rd bit: Message, 7th bit: Register code, 8th bit: POP)

Example:
85 : POP + commodity name + message
01 : Commodity name only
05 : Commodity name + message

[STRUCT. FLAG] button and field
Specify the combining flag for the commodity name field.

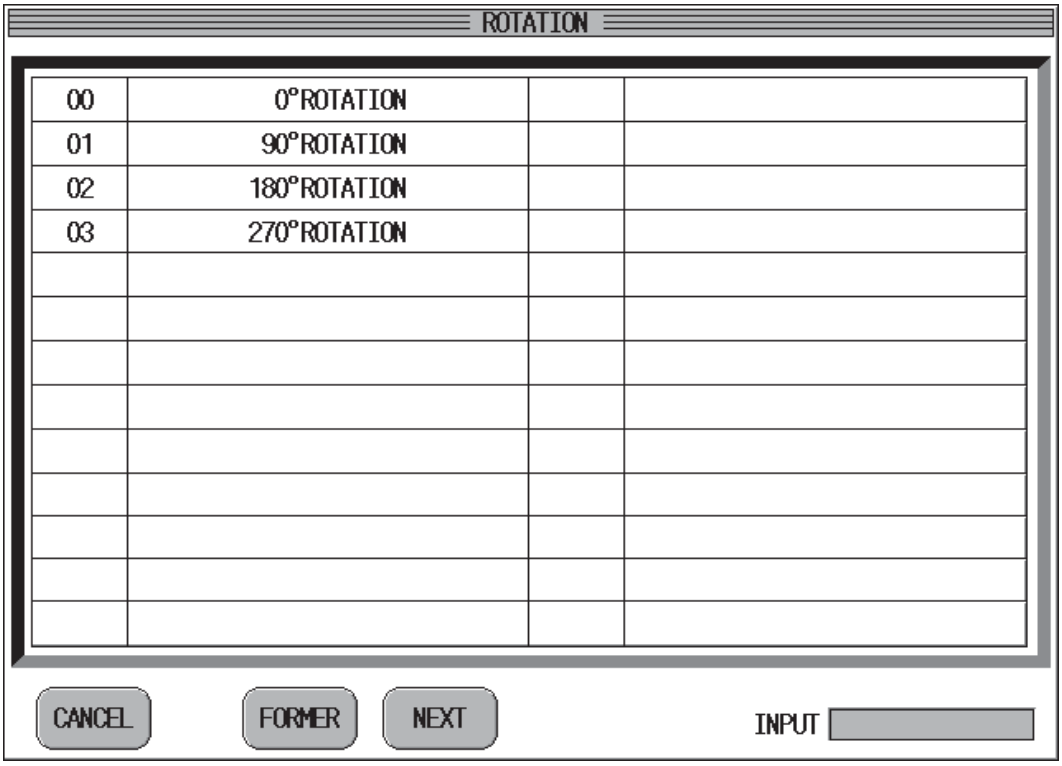
n Number Unit



[DECIMAL POS.] button/flag
Specify the position of the decimal point. Note that for the following data, the soft switch (ROM switch) is referred to.
99: The position of the decimal point of the unit price data
98: The position of the decimal point of the weight data
97: The position of the decimal point of the price data
(fixed price, sales price, discount, and so on)

[A], [B], [C], [D], [E], [F] buttons
Used to enter hexadecimal data.

n Rotation Process

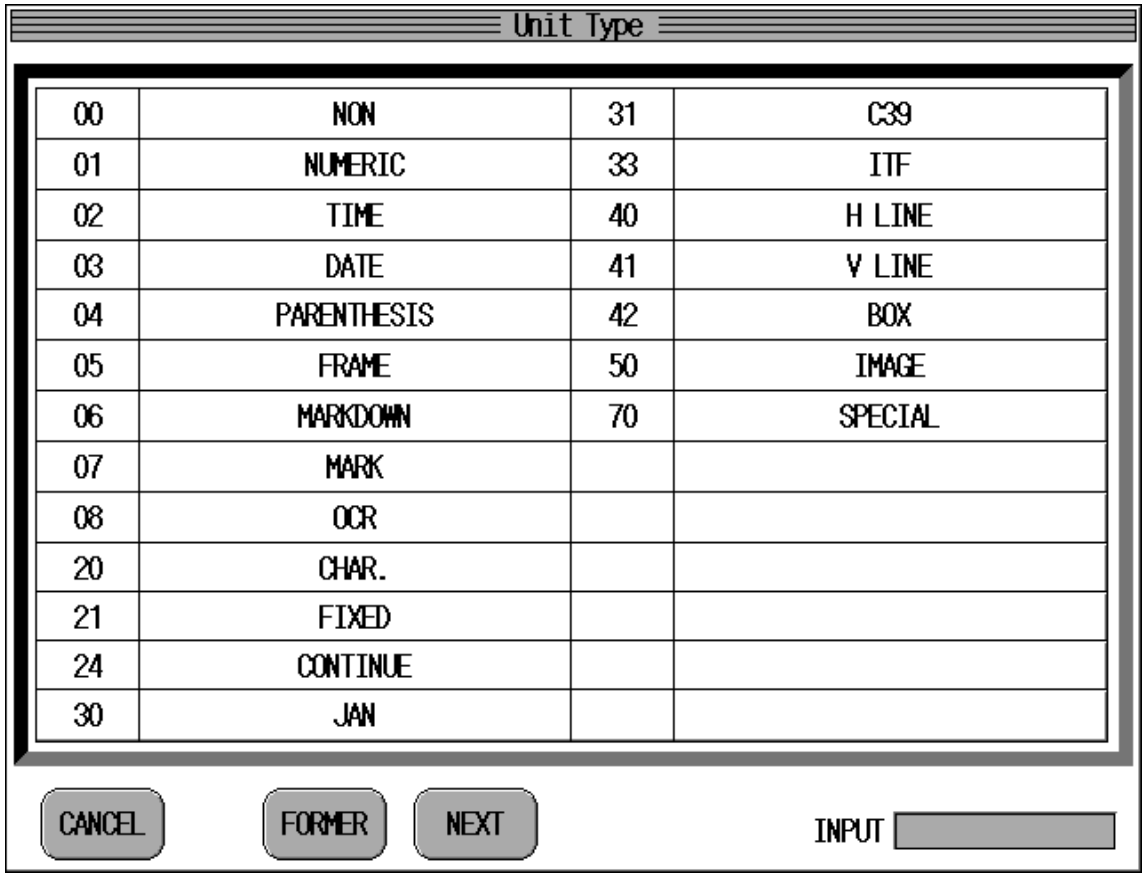


- **Specify the rotation angle from four angles in degrees: 0, 90, 180, and 270.**
- **Touch the desired item to specify the setting.**

[CANCEL] button
To return to the Unit Detail screen, press the **[CANCEL]** button on the screen.

Flipping pages on the item display
If the data consists of several pages, press either the **[FORMER]** or **[NEXT]** button on the screen in order to navigate through the pages.

n Unit Type Selection Screen



Press the desired item to specify the setting.

[CANCEL] button
To return to the Unit Detail screen, press the **[CANCEL]** button on the screen.

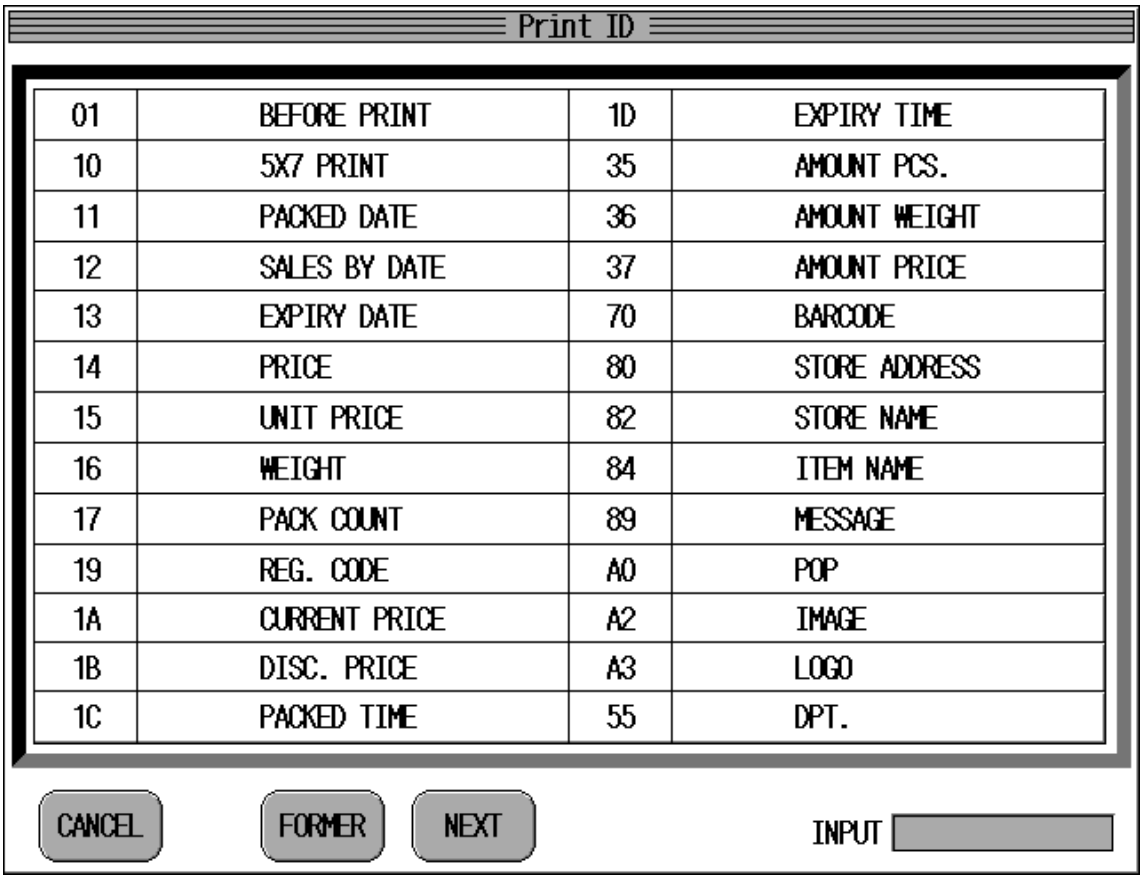
Simple explanation of each unit type

NON	Print prohibition unit
NUMERIC	Number unit
TIME	Time unit
DATE	Date unit
PARENTHESIS	With-parenthesis unit
FRAME	Framed unit
MARKDOWN	Discount price unit
MARK	Signed number unit
OCR	OCR character unit
CHAR.	Variable character string unit
FIXED	Fixed character string unit
CONTINUE	Consecutive character string unit
JAN	Barcode (JAN) unit
C39	Barcode (CODE39) unit
ITF	Barcode (ITF) unit
H LINE	Horizontal ruled line unit
V LINE	Horizontal ruled line unit
BOX	Box unit
IMAGE	Image unit (POP, logo, and so on)
SPECIAL	Special expansion unit (commodity name)

Flipping pages on the item display

If the data consists of several pages, press either the **[FORMER]** or **[NEXT]** button on the screen in order to navigate through the pages.

n Print ID Selection Screen

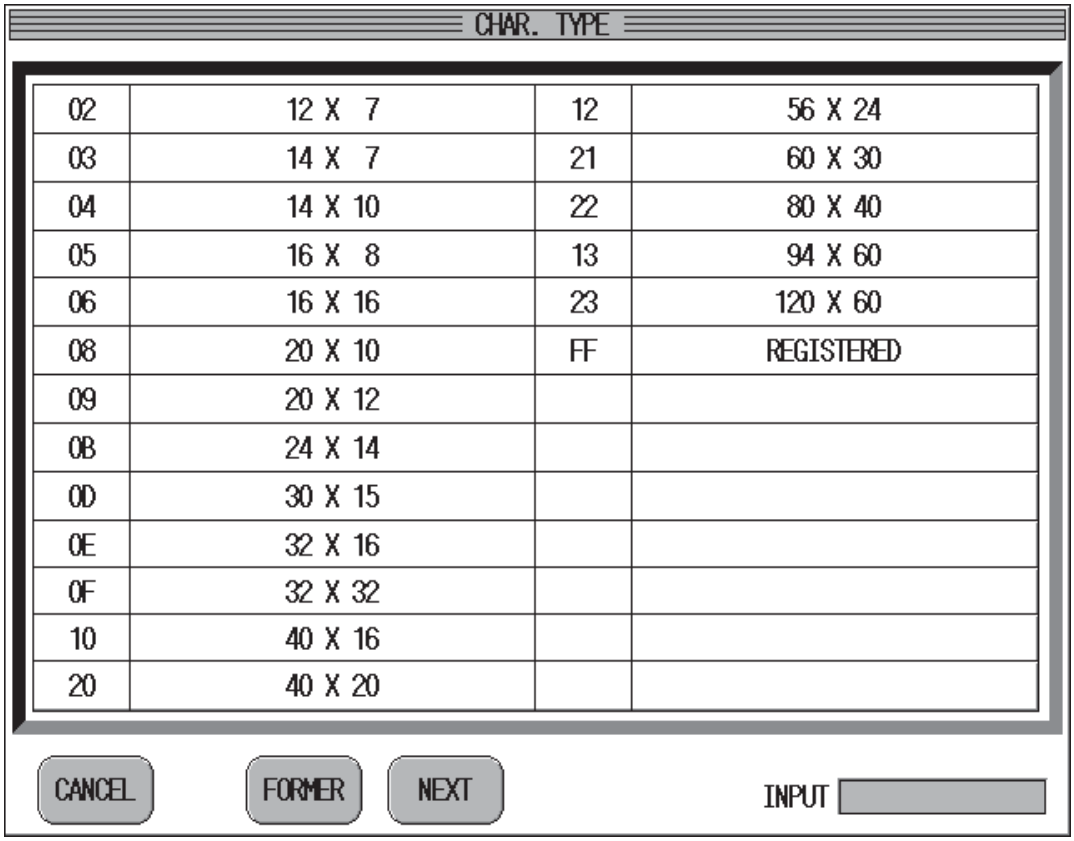


Press the desired item to specify the setting.

[CANCEL] button
To return to the Unit Detail screen, press the **[CANCEL]** button on the screen.

Flipping pages on the item display
If the data consists of several pages, press either the **[FORMER]** or **[NEXT]** button on the screen in order to navigate through the pages.

n Character Type Selection Screen

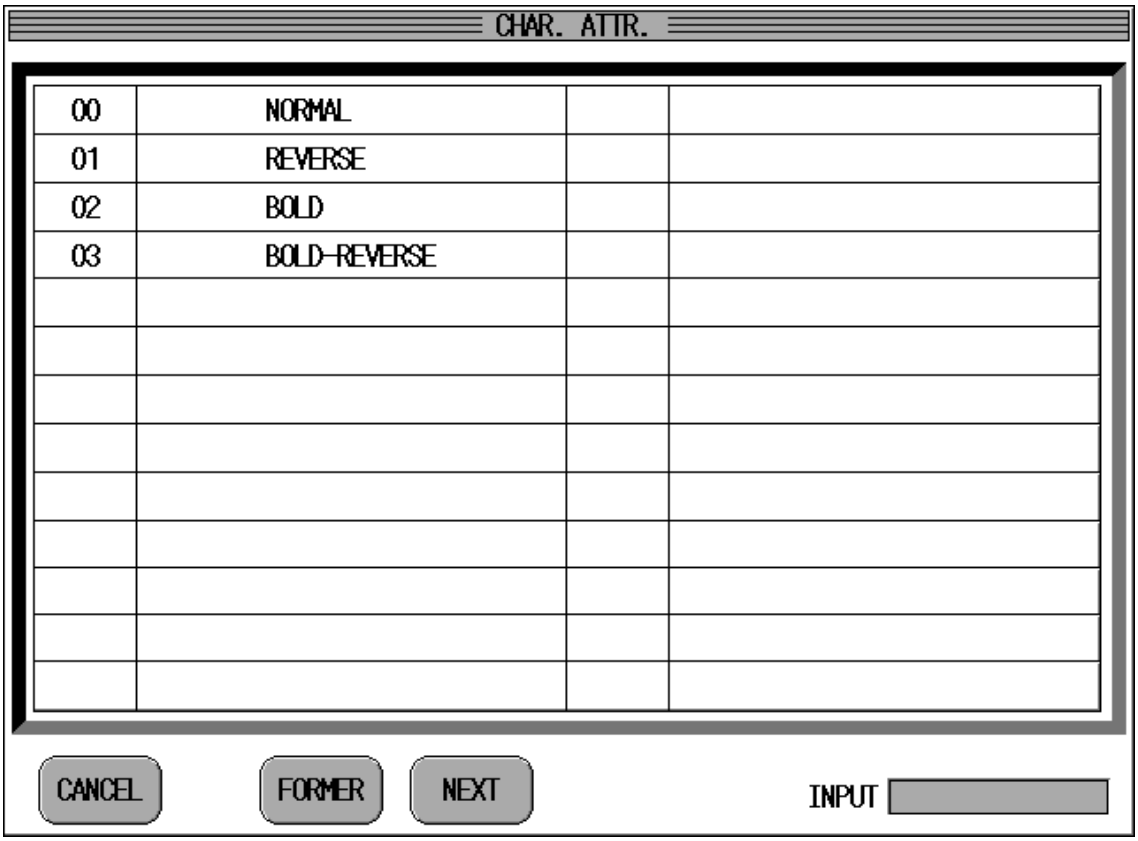


Press the desired item to specify the setting.
If FF is specified, the registered character type has higher priority.

[CANCEL] button
To return to the Unit Detail screen, press the **[CANCEL]** button on the screen.

Flipping pages on the item display
If the data consists of several pages, press either the **[FORMER]** or **[NEXT]** button on the screen in order to navigate through the pages.

n Character Attribute Selection Screen

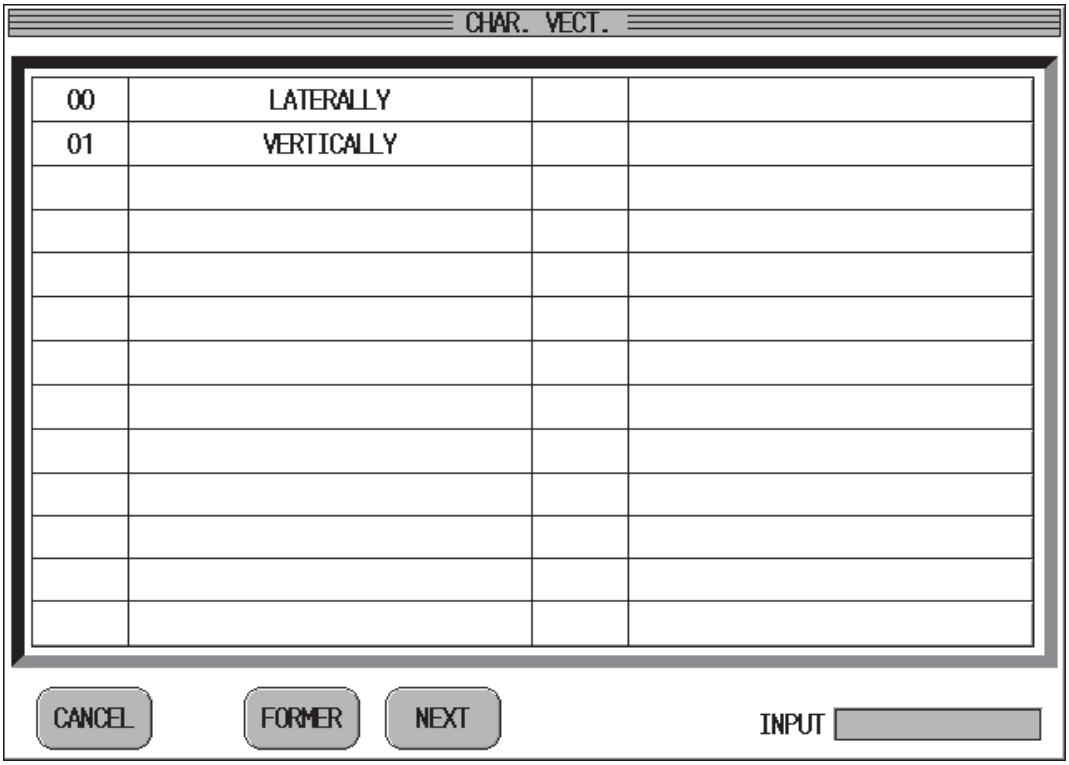


Press the desired item to specify the setting.

[CANCEL] button
To return to the Unit Detail screen, press the **[CANCEL]** button on the screen.

Flipping pages on the item display
If the data consists of several pages, press either the **[FORMER]** or **[NEXT]** button on the screen in order to navigate through the pages.

n Character Print Direction Selection Screen

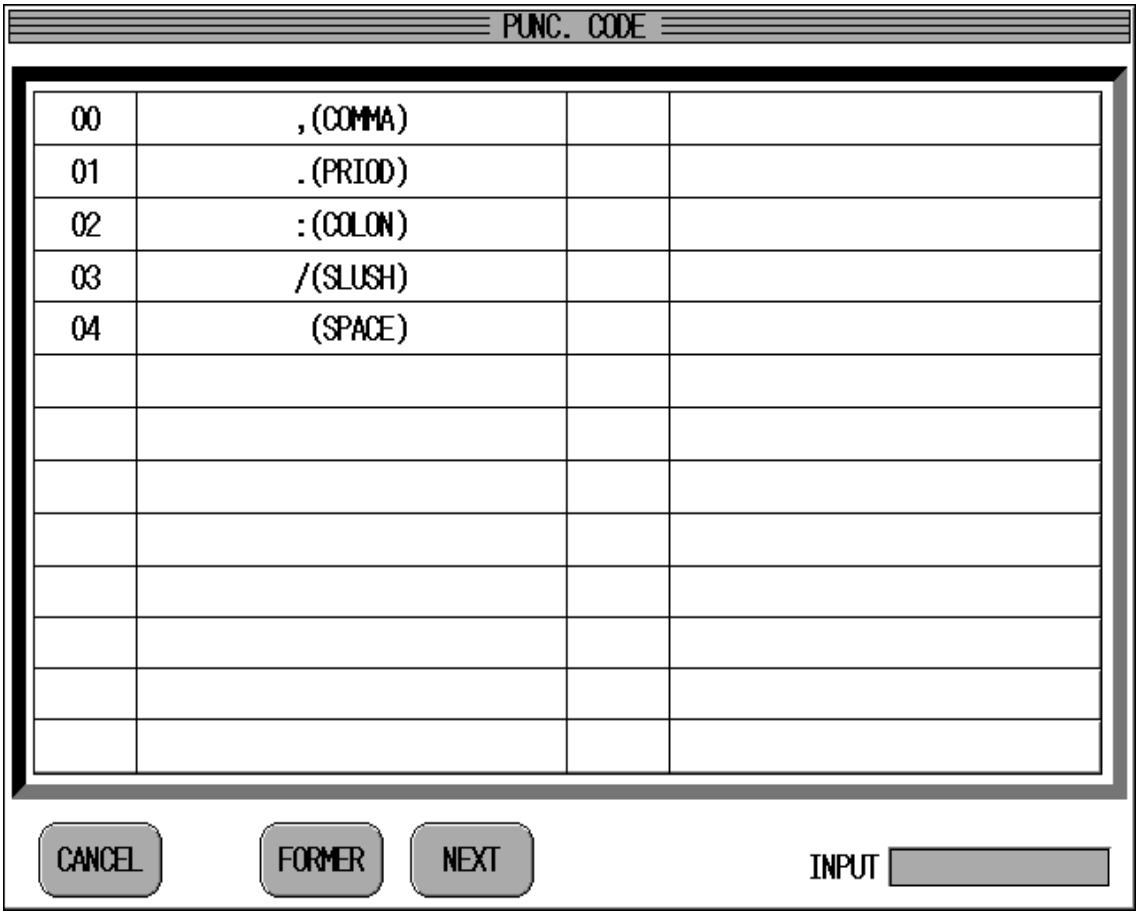


Press the desired item to specify the setting.

[CANCEL] button
To return to the Unit Detail screen, press the **[CANCEL]** button on the screen.

Flipping pages on the item display
If the data consists of several pages, press either the **[FORMER]** or **[NEXT]** button on the screen in order to navigate through the pages.

n Separator Character Selection Screen

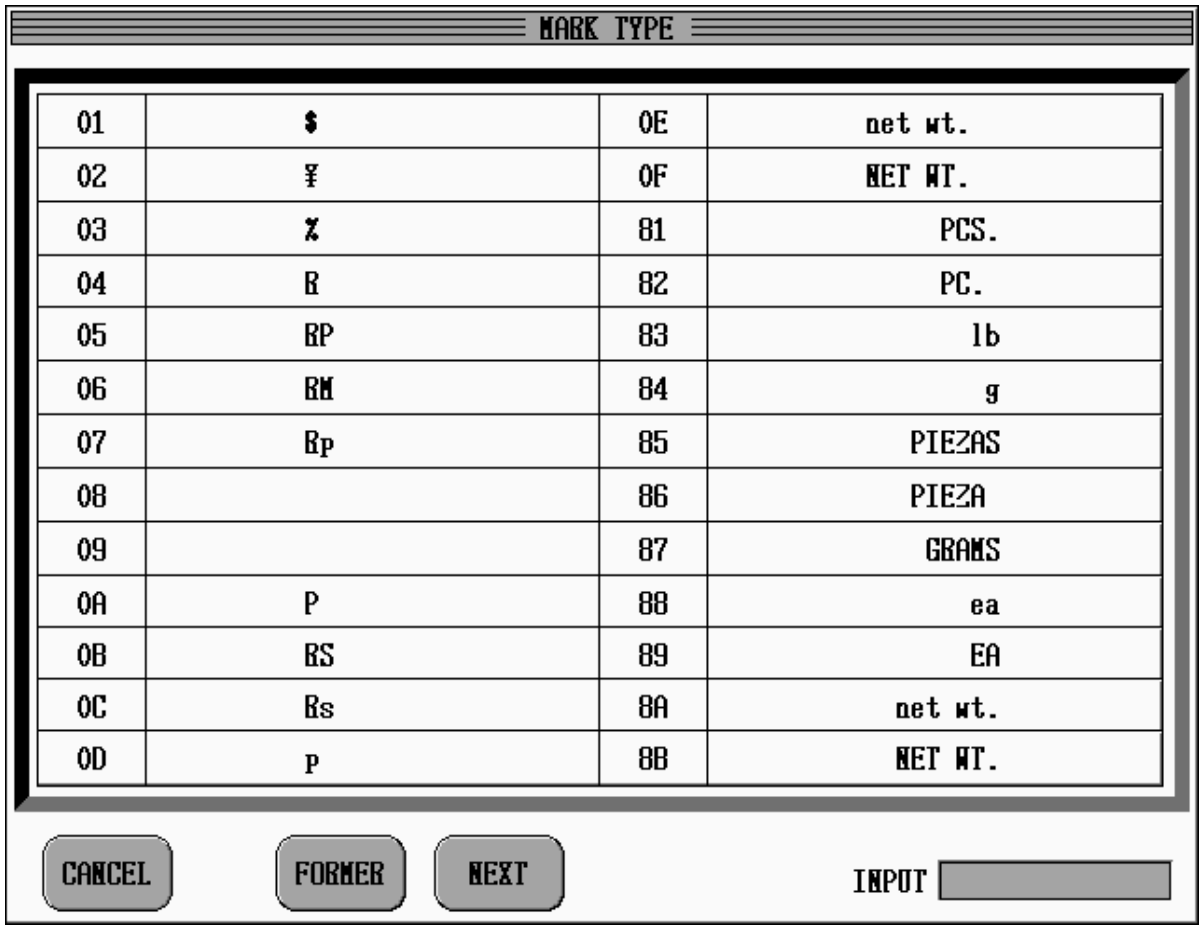


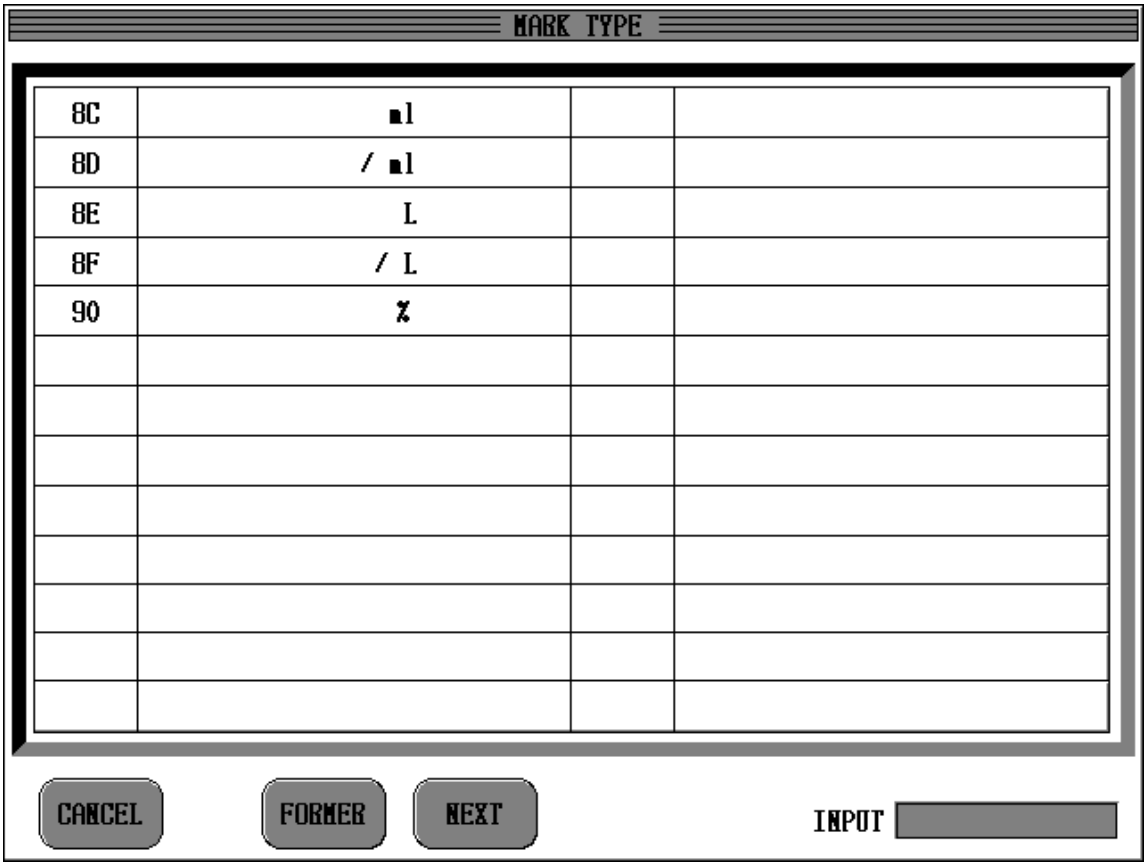
Press the desired item to specify the setting.

[CANCEL] button
To return to the Unit Detail screen, press the **[CANCEL]** button on the screen.

Flipping pages on the item display
If the data consists of several pages, press either the **[FORMER]** or **[NEXT]** button on the screen in order to navigate through the pages.

n Post-Data/Pre-Data Symbol Selection Screen





Press the desired item to specify the setting.

[CANCEL] button

To return to the Unit Detail screen, press the **[CANCEL]** button on the screen.

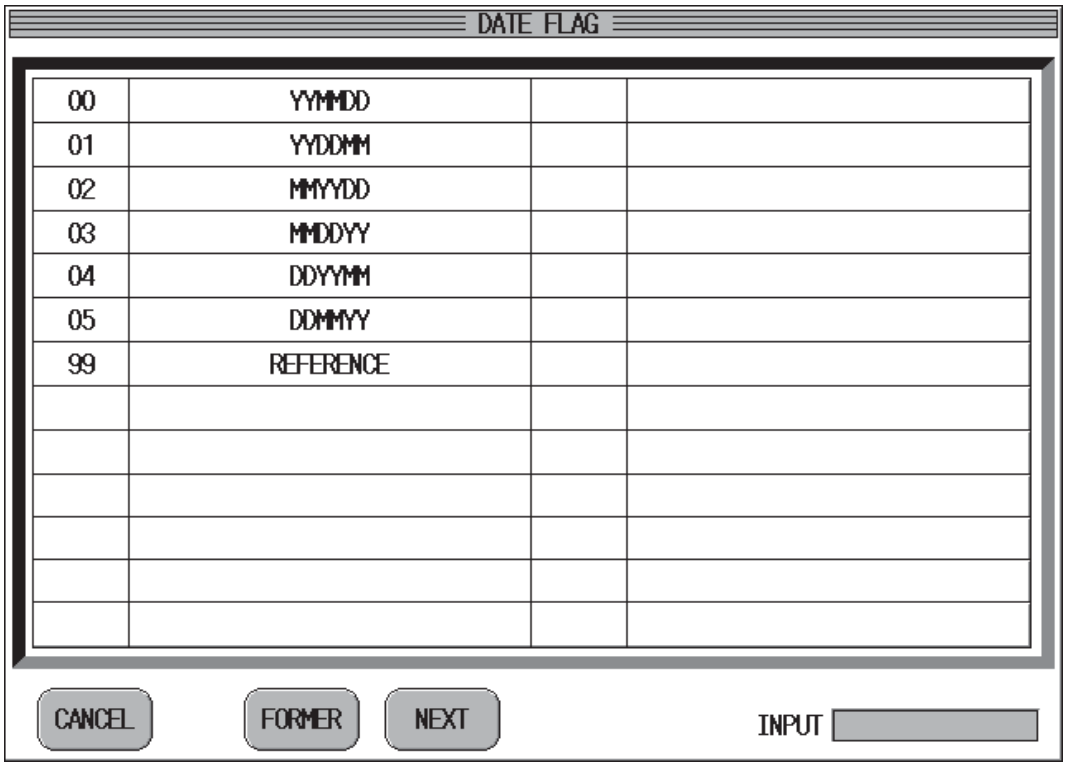
01 - 0F: Pre-data symbol

81 - 8F: Post-data symbol

Flipping pages on the item display

If the data consists of several pages, press either the **[FORMER]** or **[NEXT]** button on the screen in order to navigate through the pages.

n Data Order Selection Screen



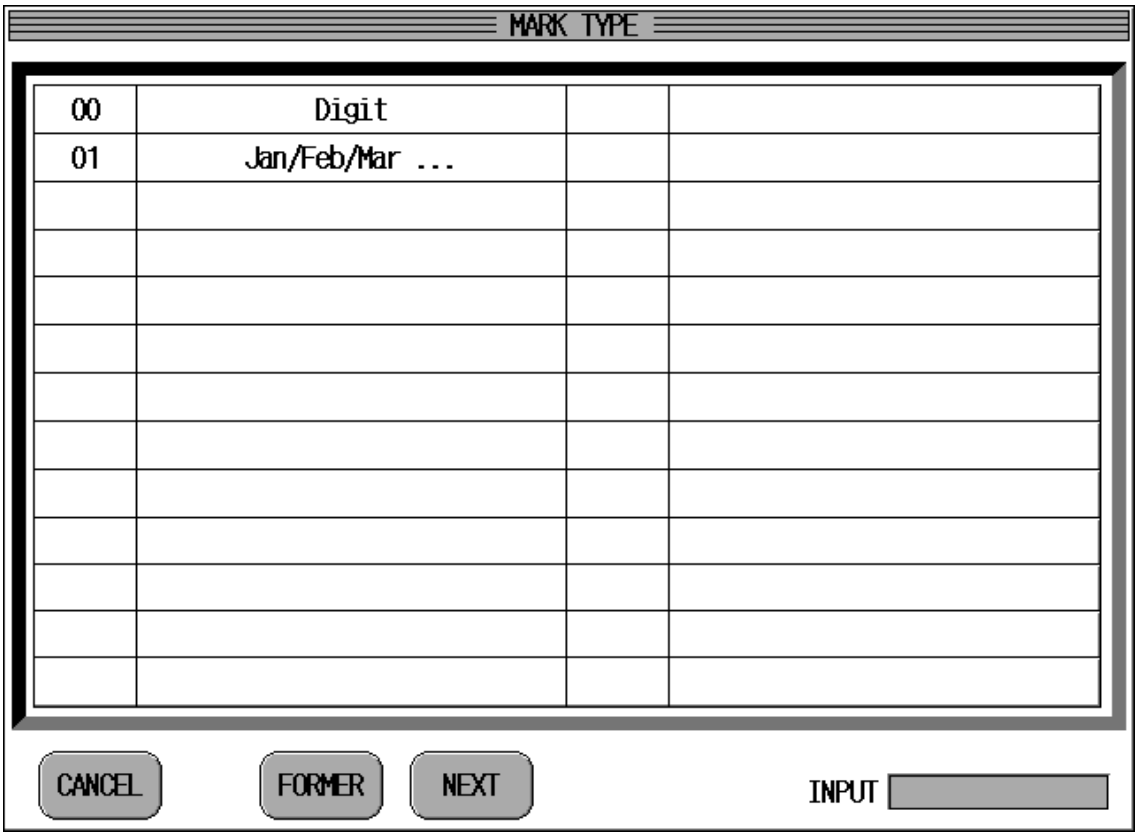
Press the desired item to specify the setting.

[CANCEL] button
To return to the Unit Detail screen, press the **[CANCEL]** button on the screen.

Flipping pages on the item display
If the data consists of several pages, press either the **[FORMER]** or **[NEXT]** button on the screen in order to navigate through the pages.

Specify the order of the date printed on labels.
(Packed date, Expiry date, Sales limit date)
The default value is 99, referring to the order specified by the ROM switch.

n Month Print Selection Screen



Press the desired item to specify the setting.

[CANCEL] button
To return to the Unit Detail screen, press the **[CANCEL]** button on the screen.

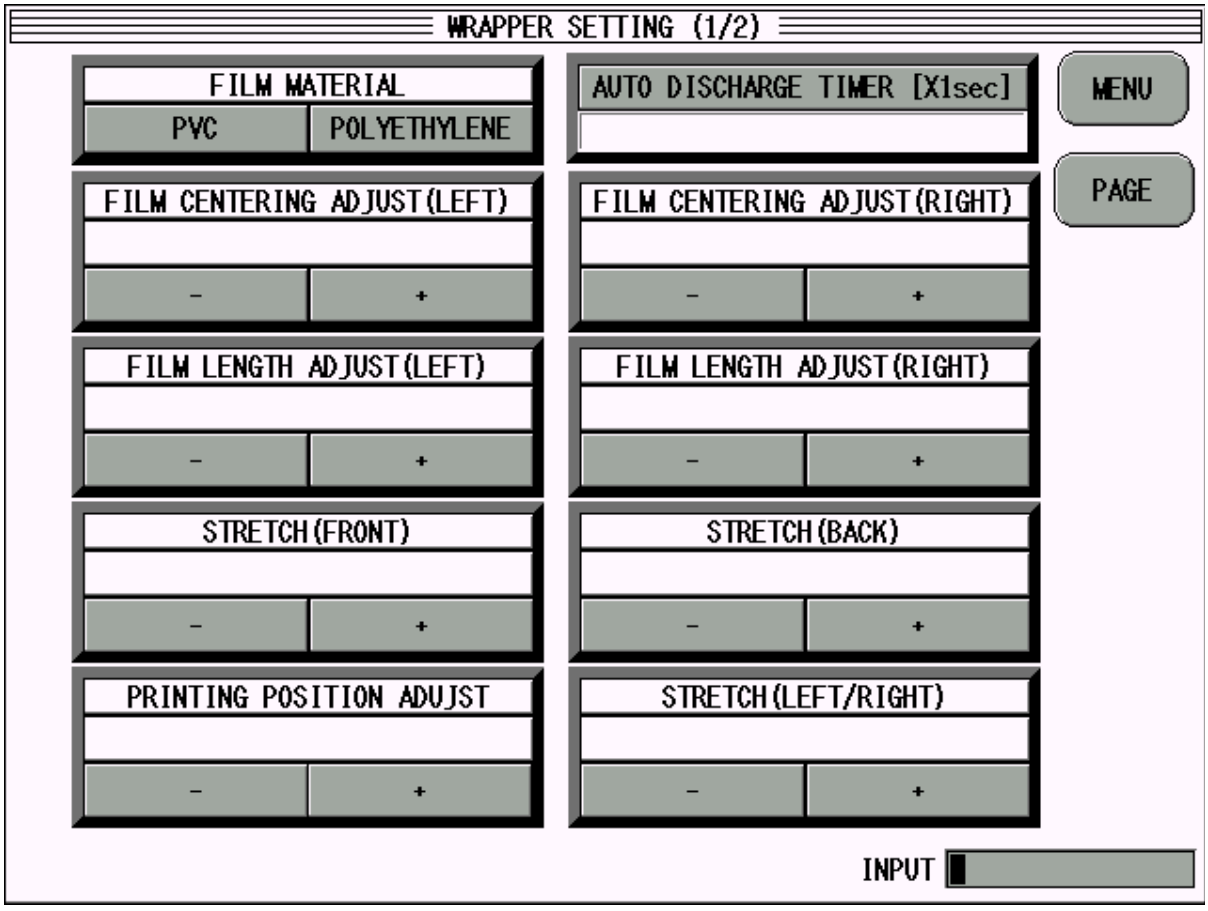
Flipping pages on the item display
If the data consists of several pages, press either the **[FORMER]** or **[NEXT]** button on the screen in order to navigate through the pages.

Specify the month print in the date printed on the label
(packed date, expiry date, sales limit date)

The meaning of each item is as follows:

Digit : Prints the month in number, 1 to 12.
Jan/Feb/Mar... : Prints the month data in 3-character English.
The default value is 00.

5.11 WRAPPER SETTING



Selection of Film Materials

1. Programming the selection of film material to be used.
2. Programmed by pressing the desired material under the FILM MATERIAL selection area. Selected item is then highlighted.
3. Default value is PCV.

Film Centering Adjustment (Left)

Adjustment is performed by using the **[+]** and **[-]** buttons in the FILM CENTERING ADJUST (LEFT) selection area (Direct data entry is also possible).

Film Centering Adjustment (Right)

Adjustment is performed by using the **[+]** and **[-]** buttons in the FILM CENTERING ADJUST (RIGHT) selection area (Direct data entry is also possible).

Film Length Adjustment (Left)

Adjustment is performed by using the **[+]** and **[-]** buttons in the FILM LENGTH ADJUST (LEFT) selection area (Direct data entry is also possible).

Film Length Adjustment (RIGHT)

Adjustment is performed by using the **[+]** and **[-]** buttons in the FILM LENGTH ADJUST (RIGHT) selection area (Direct data entry is also possible).

Tension Adjustment (Front)
Adjustment is performed by using the **[+]** and **[-]** buttons in the STRETCH (FRONT) selection area (Direct data entry is also possible).

Tension Adjustment (Rear)
Adjustment is performed by using the **[+]** and **[-]** buttons in the STRETCH (BACK) selection area (Direct data entry is also possible).

Printing Position Adjustment
Adjustment is performed by using the **[+]** and **[-]** buttons in the PRINTING POSITION ADJUST selection area (Direct data entry is also possible).

Tension Adjustment (Left/Right)
Adjustment is performed by using the **[+]** and **[-]** buttons in the STRETCH (LEFT/RIGHT) selection area (Direct data entry is also possible).

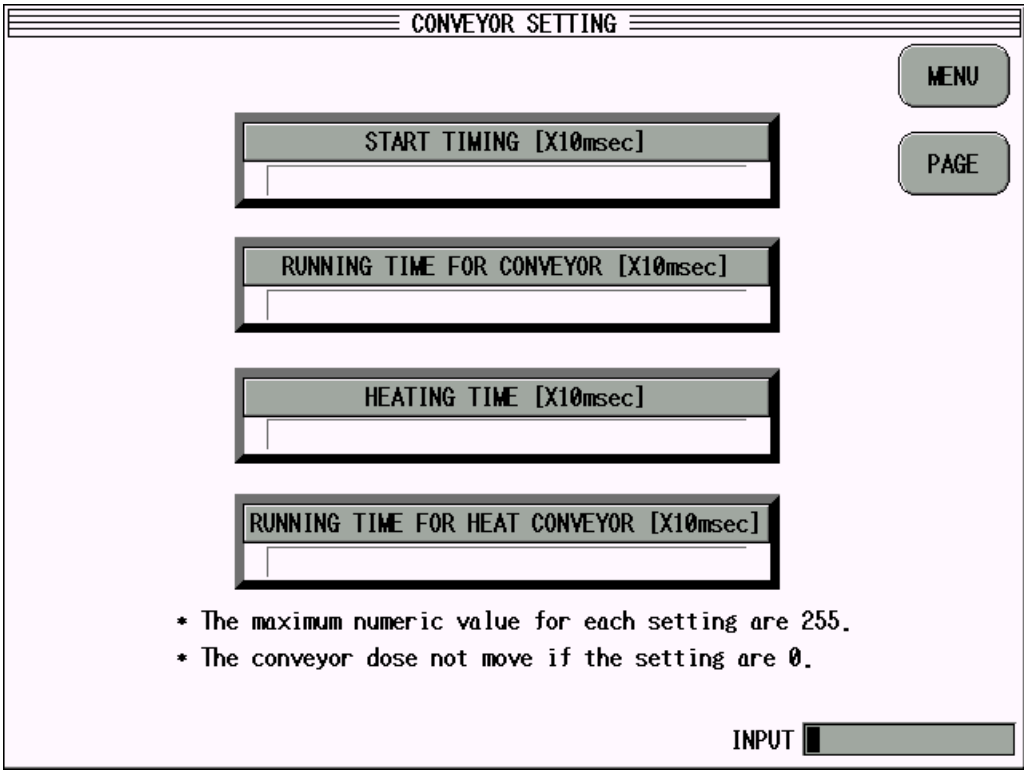
Auto Discharge Timer (X1sec)
This timer automatically operates for the set time immediately after a product is placed on the infeed conveyor. For the OMNi-3000S, press [PLU] to eject the last processed tray that remains in the machine. For the OMNi-3000ST, once the time (second) is set, the tray last processed tray that remains in the machine is automatically ejected after a given time. The default value is "0". Usually set "1s".

⚠ *CAUTIO*

Setting longer times may give the erroneous impression that the operation has ended and there may be danger of hand insertion inside the machine.

CONVEYOR SETTING

Starting time and running time can be set for the discharge and heater conveyors. For the OMNi-3000ST, this screen will be displayed by pressing [PAGE] on the WRAPPER SETTING (1/2) screen.


CONVEYOR SETTING
MENU
PAGE
START TIMING [X10msec]
RUNNING TIME FOR CONVEYOR [X10msec]
HEATING TIME [X10msec]
RUNNING TIME FOR HEAT CONVEYOR [X10msec]
* The maximum numeric value for each setting are 255.
* The conveyor dose not move if the setting are 0.
INPUT

Start Timing [X10msec]: Discharge conveyor starting timer (Default: 10)
Waits for a status of the tray discharged from the wrapper, and starts the discharge conveyor.

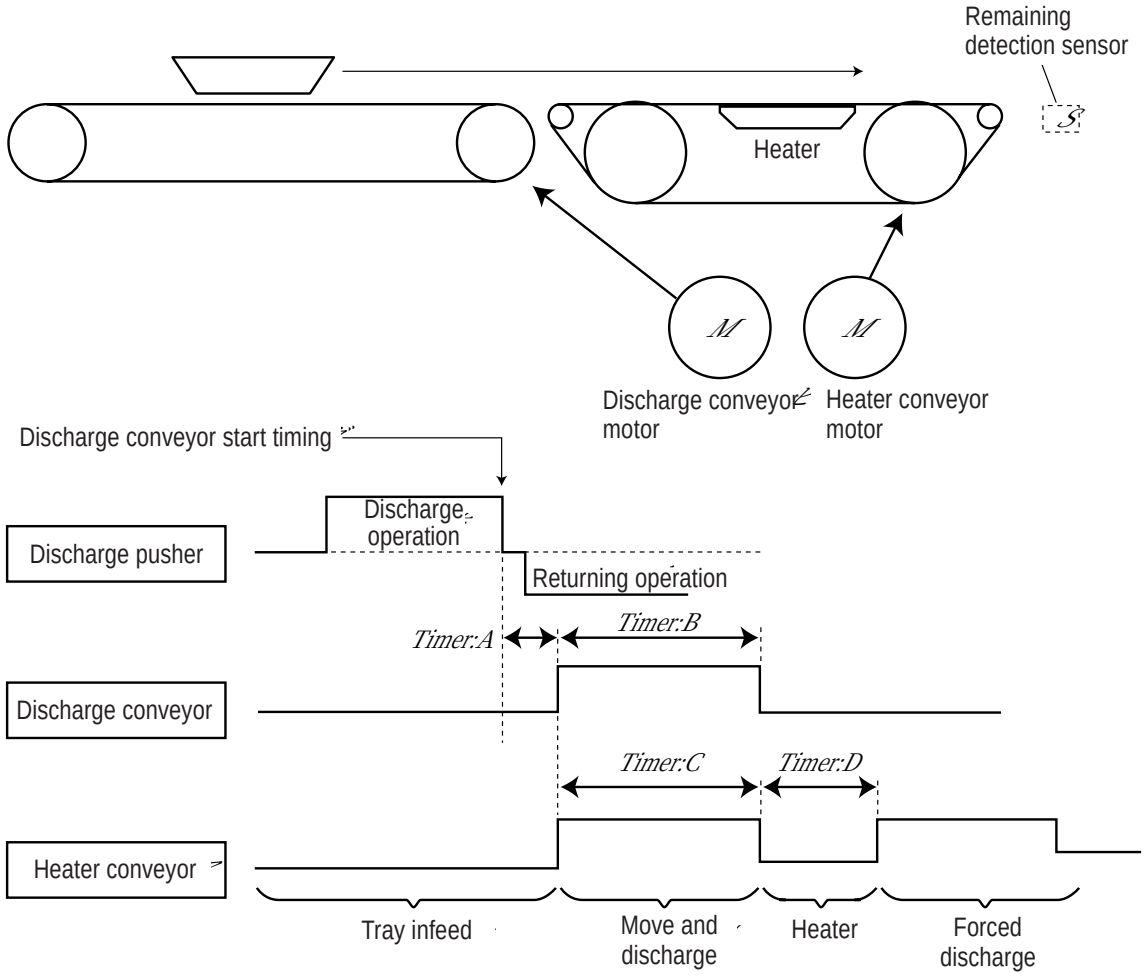
Running time for Conveyor [X10msec]: Discharge conveyor drive timer (Default: 75)
Specifies the discharge conveyor running time.

Heating time [X10msec]: Heater conveyor drive timer (Default: 100)
Specifies the heater conveyor running time.

Running time for Heat Conveyor [X10msec]: Heating time timer (Default: 75)
Specifies the heating time.

Note: Startup is performed by interrupting the discharge pusher limit photo sensor.

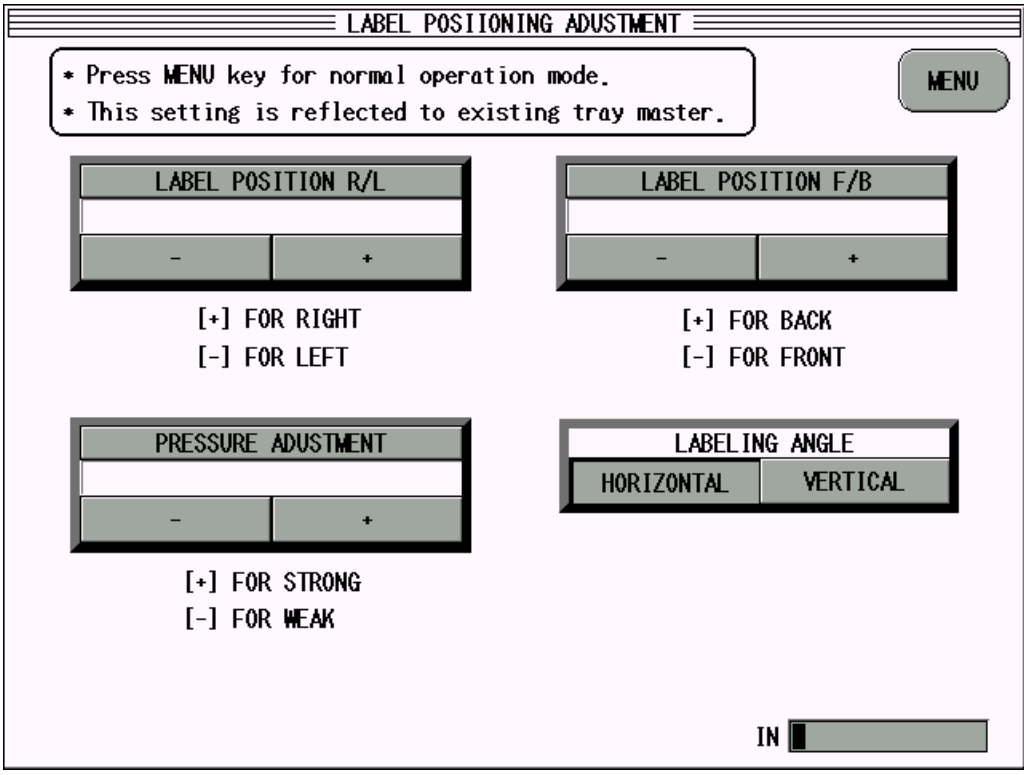
DISCHARGE CONVEYOR STARTING TIME CHART



Timer: A Discharge conveyor starting timer
Timer: B Discharge conveyor drive timer
Timer: C Heater conveyor drive timer
Timer: D Heating time timer

5.12 LABEL POSITION ADUSTMENT

Once the Function Key Set, **[Label Pos]** No. 28, is specified to display, "Label Position R/L", "Label Position F/B", "Pressure Adjustment", and "Labeling Angle" can be changed quickly.



Label Position R/L
Use **[+]** to move the label position to the right, or **[-]** to move to the left.

Label Position F/B
Use **[+]** to move the label position to the back, or **[-]** to move to the front.

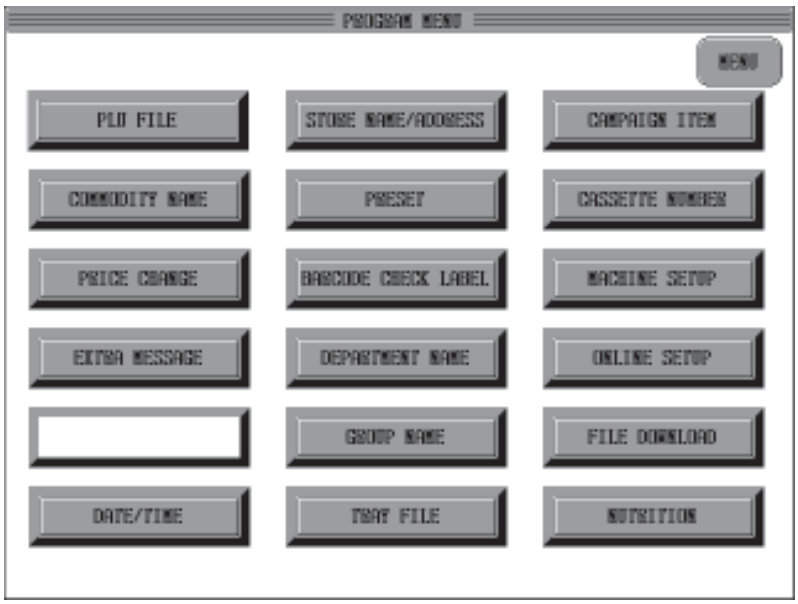
Pressure Adustment
Use **[+]** to decrease, or **[-]** to increase, the arm height for the tray height.

Labeling Angle
Press **[HORIZONTAL]** to change the labeling angle horizontal for the tray, or **[VERTICAL]** to change the labeling angle vertical. The highlighted button is selected.

Chapter 6
PROGRAM MODE

Enterring SETUP MENU

1. In Normal Mode, press MENU key at right top on the screen, so that MAIN MENU will appear.
2. Press PROGRAM MODE on MAIN MENU, so that PROGRAM MENU will appear.

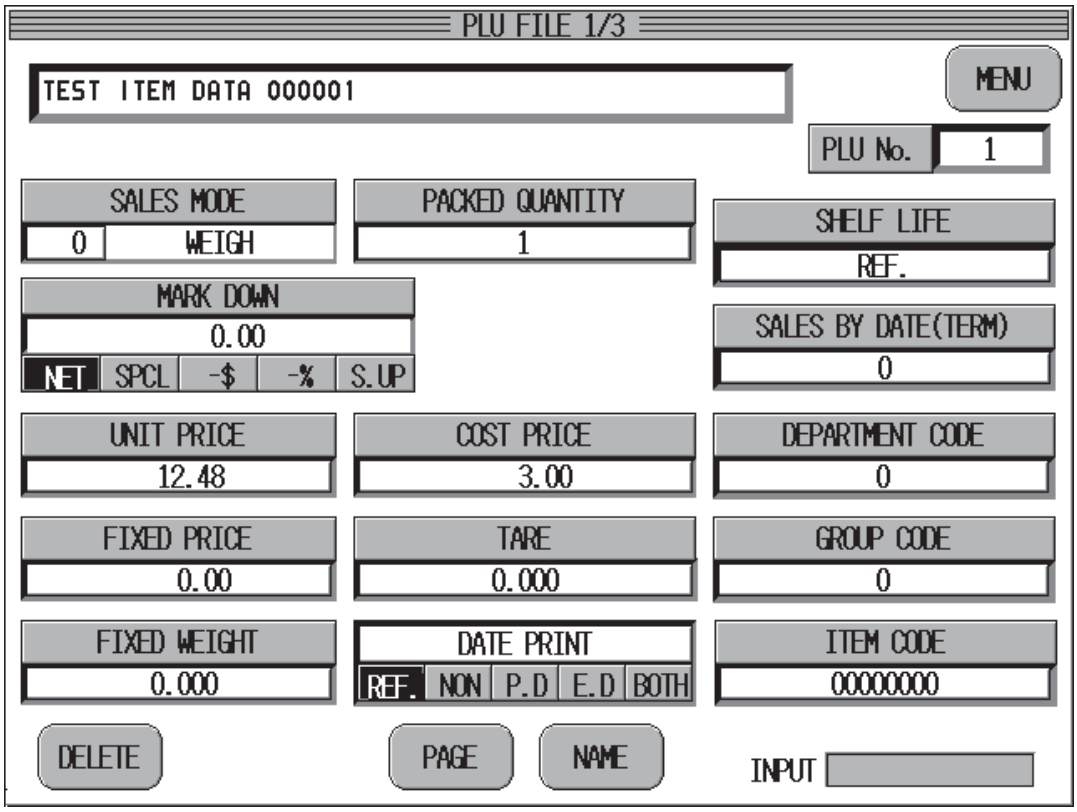


Return from SETUP MENU

1. In PROGRAM MENU, press MENU key at right top on the screen, so that MAIN MENU will appear.
2. Press NORMAL MODE on MAIN MENU, so that it will display Normal Mode.

6.1 PLU FILE

6.1.1 PLU FILE SCREEN 1/3



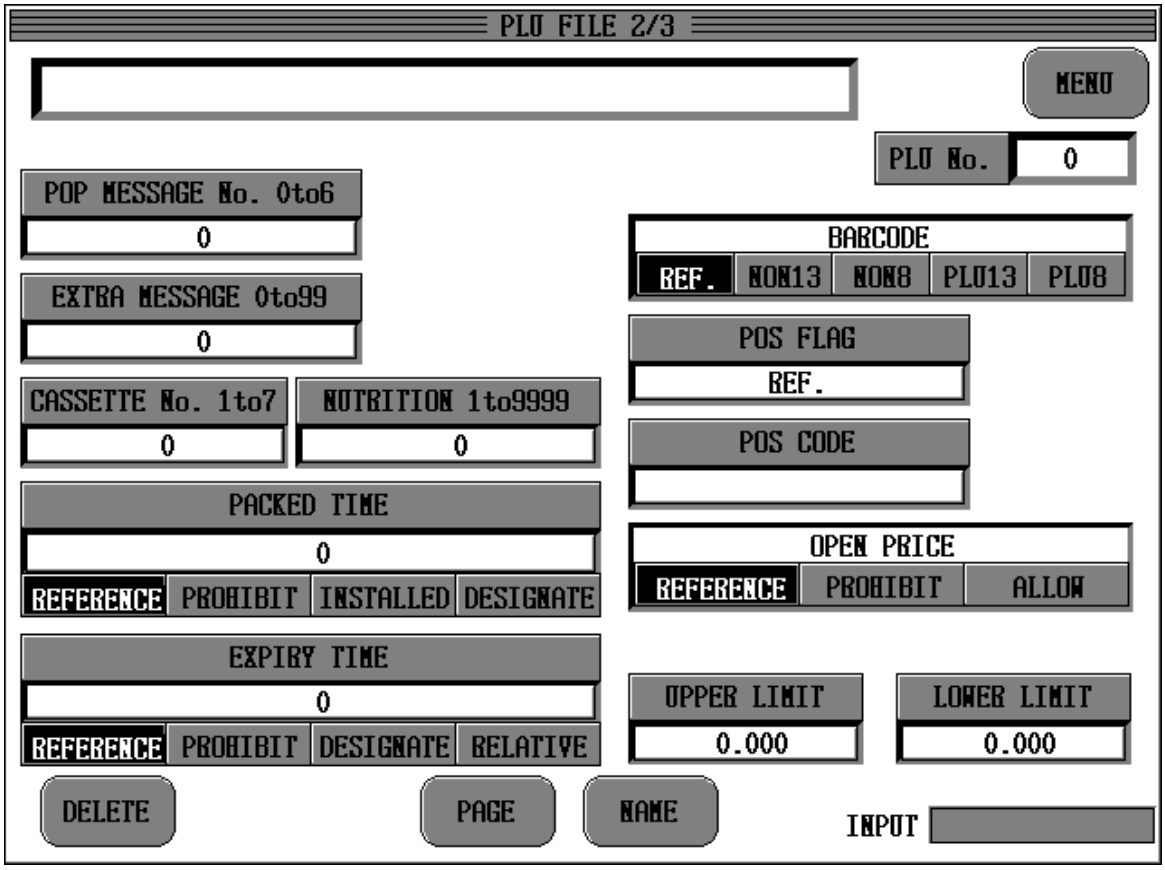
PROGRAMMING FIELD

Each field of an item can be programmed according to the following procedures. Press the desired button on the PLU File screen and enter the required data into the fields.

Field	Oreration
Commodity Name 999 char.	1. Press the **[NAME]** button on the screen to display the editor screen for commodity name entry. 2. Enter the commodity name using the PC keyboard. To enter inserts successively, press the **[INSERTS]** button on the edit screen to move the cursor to the next line. 3. Press the **[MENU]** button to return to the PLU File screen.
Unit Price	1. Enter the unit price (e.g. $5.00) using the numeric keypad on the key sheet. **[5] [0] [0]** 2. Press the **[UNIT PRICE]** button on the screen. *Note: Up to 6 digits can be entered. (0 to 999999)*
Cost Price	1. Enter the cost price (e.g. $2.50) using the numeric keypad on the key sheet. **[2] [5] [0]** 2. Press the **[COST PRICE]** button on the screen. *Note: Up to 6 digits can be entered. (0 to 999999)*
Fixed Price	1. Enter a fixed price (e.g. $8.00) using the numeric keypad on the key sheet. **[8] [0] [0]** 2. Press the **[FIXED PRICE]** button on the screen. *Note: Up to 7 digits can be entered. (0 to 9999999)*
Fixed Weight	1. Enter a fixed weight (e.g. 160g) using the numeric keypad on the key sheet. **[1] [6] [0]** 2. Press the **[FIXED WEIGHT]** button on the screen. *Note: Max. number of digits allowed depends on the country. The availability of this function depends on the country requirements.*
Tare Weight	1. Enter a tare weight (e.g. 20g) using the numeric keypad on the key sheet. **[2] [0]** 2. Press the [TARE] button on the screen. *Note: Up to 3 digits can be entered. (0 to 998)*
Markdown	1. Select one of the following flags by pressing the appropriate button. **[NET] :** No markdown (0 to 999999) **[SPCL] :** Special price (0 to 999999) **[–$] :** Price discount (0 to 999999) **[–%] :** Percent discount (0 to 99) **[S.UP] :** Special unit price (0 to 999999) 2. Enter the numeric value (e.g. $7.20 as the special unit price) using the numeric keypad on the key sheet. **[7] [2] [0]** 3. Press the **[S.UP]** button on the screen.
Department Code	1. Enter a department code (e.g. 9) using the numeric keypad on the key sheet. **[9]** 2. Press the **[DEPARTMENT CODE]** button on the screen. *Note: Max. number of department codes varies depending on code setup in program mode. POS preset status.*

Field	Operation
Group Code **0 to 99**	1. Enter a group code (e.g. 15) using the numeric keypad on the key sheet. **[1] [5]** 2. Press the **[GROUP CODE]** button. *Note: Max. number of digits varies depending on POS preset status.*
Item Code	1. Enter the item code (e.g. 01234567) using the numeric keypad on the key sheet. **[0] [1] [2] [3] [4] [5] [6] [7]** 2. Press the **[ITEM CODE]** button on the screen. *Note: Up to 8 digits can be entered. (0 to 99999999)* *Program an expiry date after being packed.*
Sales by Date (Term)	1. Enter the number of days to expiration (e.g. 3 days) using the numeric keypad on the key sheet. **[3]** 2. Press the **[SALES BY DATE]** button on the screen. *Note: Up to 3 digits can be entered. (0 to 999)*
Sales Mode	1. Select an appropriate sales mode by entering either **[0**], **[1]** or **[2]** on the screen, depending on the item classification. **0 : WEIGH MODE** **1 : NON-WEIGH MODE** **2 : WEIGH/FIXED PRICE MODE** 2. Press the **[SALES MODE]** button on the screen. *Note: Whether or not the selection of this mode is possible depends on the country.*
Date Print	1. Select one of the flags by pressing either the **[REF.**], **[NON**], **[P.D**], **[E.D]** or **[BOTH]** button on the screen. **REF. : Refer to program data** **NON : Prohibit printing of packed and expiry date** **P.D : Print packed date** **E.D : Print expiry date** **BOTH : Print both packed and expiry dates** 2. The selected flag will be highlighted.
Packed Quantity	1. Enter the packed quantity (e.g. 3 pcs.) for a non-weigh item using the numeric keypad on the key sheet. **[3]** 2. Press the **[PACKED QUANTITY]** button on the screen. *Note: Up to 3 digits can be entered. (0 to 999)*
Shelf Life	1. Enter a shelf life (e.g. 7 days) using the numeric keypad on the key sheet. **[7]** 2. Press the **[SHELF LIFE]** button on the screen. *Note: Numeric entry (1 to 999), or **[REF.]** can be accepted.*

6.1.2 PLU FILE SCREEN 2/3

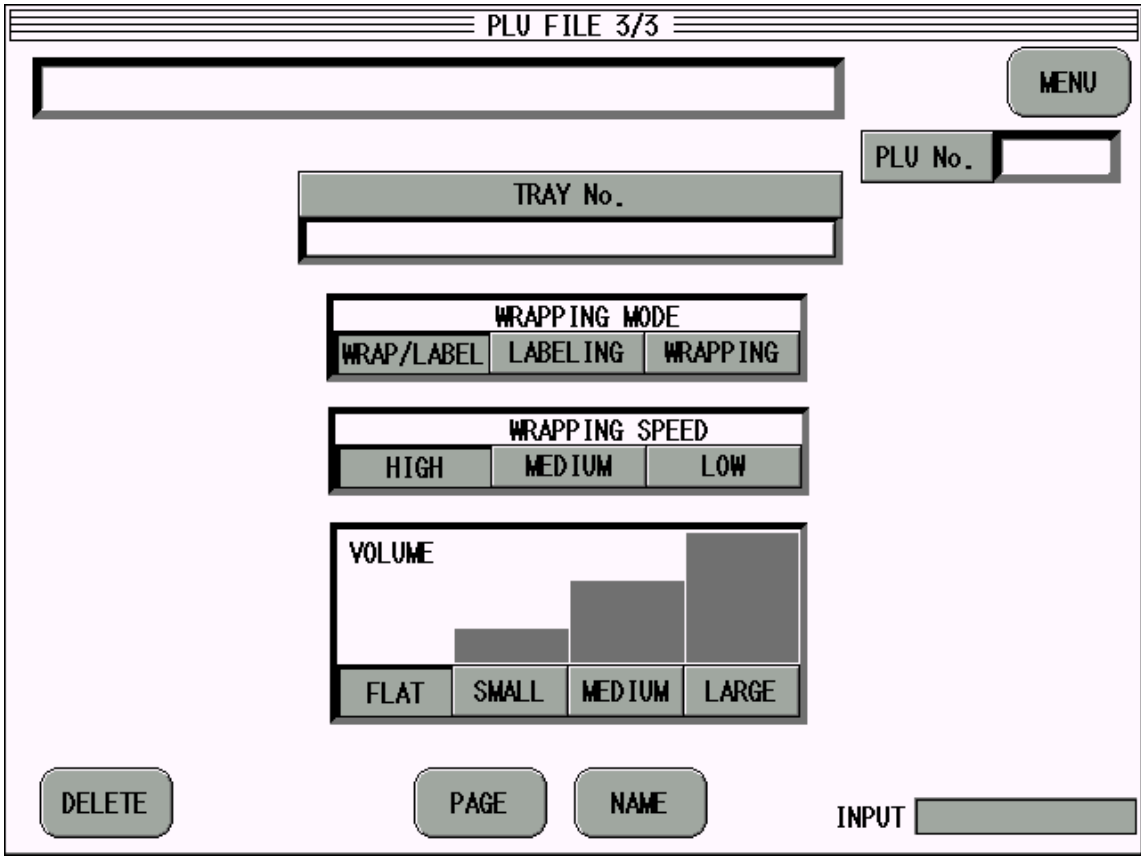


6.1.3 PLU FILE SCREEN 2/3

Item	Operation
POP Message 0 to 6	1. Enter a POP message number (e.g. message number 3) using the numeric keypad on the key sheet. **[3]** 2. Press the **[POP MESSAGE NO.]** button on the screen. *Note: Message will not be printed when zero is programmed.*
Extra Message 0 to 99	1. Enter a extra message number (e.g. message number 36) using the numeric keypad on the key sheet. **[3] [6]** 2. Press the **[EXTRA MESSAGE]** button on the screen. *Note: Message will not be printed when zero is programmed.*
Packed Time	1. Select one of the flags by pressing the appropriate button on the screen. **REFERENCE :** Refer to program data **PROHIBIT :** Prohibit printing of packed time **INSTALLED :** Print system clock **DESIGNATE :** Print time programmed by the user (0:00 to 23:59) *Note: The selected flag will be highlighted.* 2. Enter the packed time (e.g. 18:15) using the numeric keypad on the key sheet. **[1] [8] [1] [5]** *Note: This packed time programming is only possible when the **[DESIGNATE]** flag is selected.* 3. Press the **[PACKED TIME]** button on the screen.
Expiry Time	1. Select one of the flags by pressing the appropriate button on the screen. **REFERENCE :** Refer to program data **PROHIBIT :** Prohibit printing of expiry time **DESIGNATE :** Print expiry time programmed by the user (0:00 to 23:59) **RELATIVE :** Print relative time from packed time (0 to 9999 min.) 2. Enter the expiry time (e.g. 16:30) using the numeric keypad on the key sheet. **[1] [6] [3] [0]** *Note: This expiry time programming is only possible when the **[DESIGNATE]** flag is selected.* 3. Press the **[EXPIRY TIME]** button on the screen.
Barcode	1. Select one of the barcode type flags by pressing the desired button on the screen. **REF. : Refer to program data** **NON13 : 13 digit Non-PLU** **NON8 : 8 digit Non-PLU** **PLU13 : 13 digit PLU** **PLU8 : 8 digit PLU**
POS Flag	1. Enter the POS flag (e.g. 11) using the numeric keypad on the key sheet. **[1] [1] (max. 2 digits)** 2. Press the **[POS FLAG]** button on the screen. *Note: When the **[REF.]** flag is selected, data entry can not be performed.*
POS Code	1. Enter the POS code (e.g. 555) using the numeric keypad on the key sheet. **[5] [5] [5] (max. 10 digits)** 2. Press the **[POS CODE]** button on the screen. *Note: Except in the case of "0" entry, this code becomes code data for barcode OCR data.*

Item	Operation
Open Price	1. Program whether or not to allow a temporary price change by selecting one of the following flags shown below: **REFERENCE : Refer to program data (default setting)** **PROHIBIT : Prohibit temporary price change** **ALLOW : Allow temporary price change** 2. Press the selected flag on the screen. *Note: The selected flag will be highlighted.*
Upper Limit	1. Enter the upper limit weight (e.g. 0.999kg) using the numeric keypad on the key sheet. **[9] [9] [9] (max. 4 digits)** 2. Press the **[UPPER LIMIT]** button on the screen. *Note: When "0" is entered, any weight can be accepted.*
Lower Limit	1. Enter the lower limit weight (e.g. 0.009kg) using the numeric keypad on the key sheet. **[9] (max. 4 digits)** 2. Press the **[LOWER LIMIT]** button. *Note: When "0" is entered, any weight can be accepted.*

6.1.4 PLU FILE SCREEN 3/3

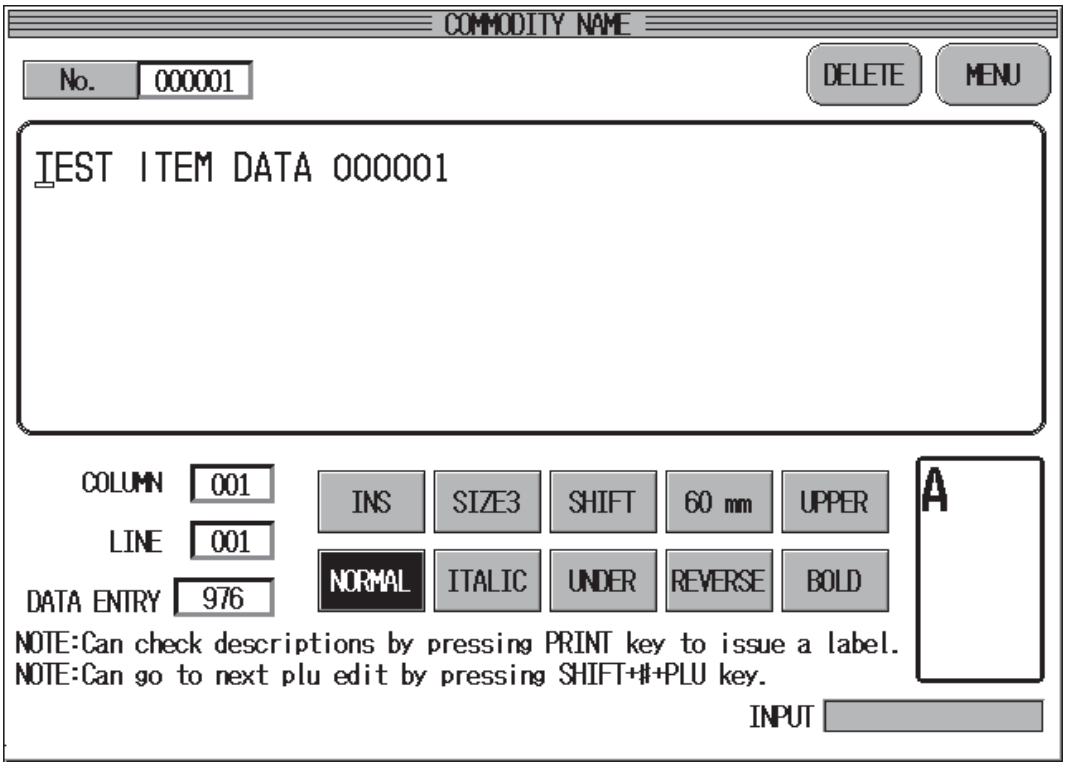


n Programming Items

Item	Operation
Tray No.	1. Enter a tray master number (e.g. Tray No. 12) using the numeric keypad on the key sheet. **[1] [2] (max. 4 digits)** 2. Press the **[TRAY NO.]** button on the screen.
Wrapping Mode	1. Program the wrapping mode by pressing one of the following flags on the screen. **WRAP/LABEL: Wrapping and labeling operations** **LABELING : Labeling operations only** **WRAPPING : Wrapping operations only**
Wrapping Speed	1. Program the wrapping speed by pressing one of the following flags that are located on the screen. **HIGH : High-speed wrapping** **MEDIUM : Medium-speed wrapping** **LOW : Low-speed wrapping**
Volume	1. Program the filling volume by pressing one of the following flags that are located on the screen. **FLAT : Flat-filling item** **SMALL : Small-filling item** **MEDIUM : Medium-filling item** **LARGE : Large-filling item**

6.2 COMMODITY NAME

6.2.1 COMMODITY NAME EDIT SCREEN



Commodity name display area
Displayed character size : Fixed (20X10)
Display area: 7 lines. If data contains more, it is scrolled line by line.
The maximum number of displayed characters is 48 characters (the cursor is positioned at the 49th character)

Character (size) image display area
The character at the cursor position is displayed, showing its size and image. It is displayed when the size is changed or the line is changed. Decorative characters are not supported.

Loading the commodity name number
Enter the number to be loaded and press the **[No.]** button on the screen or press the PLU key.
(If data has previously been loaded and a number is entered, the number is dealt with as a character string. To avoid this, first press the **[SHIFT]** button on the screen or press the **[SHIFT]** key to enter the numeric data entry mode and then proceed with this process.) If a commodity name has been entered, its character string is displayed. In this case, the cursor is positioned at the 1st character.

Displaying data at the cursor (the line in which the cursor is positioned)
The column number in the line where the cursor is positioned is displayed in the **[COLUMN]** display field on the screen.

Displaying the line in which the cursor is positioned
The line number in which the cursor is positioned is displayed in the **[LINE]** display field.

Displaying the number of remaining registerable characters (in bytes)
The number of remaining registerable characters is displayed in the **[DATA ENTRY]** display field. Note that characters numbers also includes those of return codes, character size, and decoration codes.

Selecting the character string entry mode

Press the **[INS (OVER)]** button on the screen or press the **[INSERT]** key to select between insert or overwrite mode. The **[INS (OVER)]** button can be toggled and has two different functions, as a button and as a status display.

Changing the character size

Without entering any numerical data, press the **[SIZE]** button on the screen or press the **[SIZE]** key to change the sorting order depending on the character size. Using numerical data, the character size can be changed to the value. The **[SIZE]** button has two functions, as a button and as a status display.

Adding character styles

Press one of the **[NORMAL**], **[ITALIC**], **[UNDER**], **[REVERSE**], or **[BOLD]** buttons on the screen or use one of the **[NORMAL**], **[ITALIC**], **[UNDERLINE**], **[REVERSE**], or **[BOLD]** keys.
The selected button is then highlighted.
Each style button has two functions, as a button and a status display.

NORMAL : Resets up to four style flags.
ITALIC, UNDER, REVERSE, BOLD : Can be set in combination.

Selecting the numeric data entry mode

Press the **[SHIFT]** button on the screen or press the **[SHIFT]** key to perform selection. The **[SHIFT]** button has two functions, as a button and as a status display. If it is displayed in normal mode, the entered number is dealt with as a character string. Note that even if it is displayed in normal mode, the mode is in numerical entry mode before loading a number. If it is highlighted, it is dealt with as numeric data.

Selecting the width of the commodity name expansion area

Press the 60mm (38mm) button on the screen to select the width of the information print area used to register character strings; in other words, to select the maximum number of characters that can be registered.
The 60mm/38mm button can be toggled and has two functions, as a button and as a status display.

Selecting upper-case characters or lower-case characters (upper or lower)

Press the **[UPPER/LOWER]** button on the screen or press the **[LOWER CASE]** key to select between upper-case characters or lower-case characters. (Note that lower-case characters can only be used in the 14X07 size. When another size is specified, all characters are entered as upper-case even if a lower-case character entry is specified). This process can also be used to select main or sub-characters. The **[UPPER/LOWER]** button can be toggled and has two functions, as a button and as a status display.

Moving the cursor
Press the →, ←, ↑, and ↓ keys to move the cursor.
If the cursor is not at the end of a line, pressing the « key moves the cursor to the end of the line. If the cursor is not at the beginning of a line, pressing the ª key moves the cursor to the beginning of the line.

Deleting a single character (the previous character from where the cursor is positioned)
Press the **[BS]** key to delete a character immediately preceding the character where the cursor is positioned. If the cursor is at the beginning of the 2nd or a later line, pressing the **[BS]** key deletes the return code and moves the beginning of the line to the end of th previous line. The result of combining lines means that more than the allowable number of characters per line will be exceeded, therefore an error occurs when the **[BS]** key is pressed.
After deleting characters, data in the **[DATA ENTRY]** display field decreases by the number of characters deleted.

Deleting a single character (character where the cursor is positioned)
Press the **[CHAR DELETE]** key to delete the character where the cursor is positioned. If the cursor is at the end of a line, the return code in the next line is deleted and that line will move up, combining the two lines. The result of combining lines means that more than the allowable number of characters per line will be exceeded, therefore an error occurs when the **[CHAR DELETE]** key is pressed. After deletion, data in the **[DATA ENTRY]** display field decreases by 1 or more character.

Deleting a single line (line where the cursor is positioned)
Press the **[LINE DELETE]** key to delete the line where the cursor is positioned.

Copying character string data

Loading a copy-destination character string number
Enter a copy-source number (numeral data) and press the **[COPY]** key. The copy confirmation pop-up screen is displayed.

Deleting entered numeric data
Press the **[CLR]** key to delete entered numeric data displayed in the **[INPUT]** display field on the screen.

Entering the return code
Press the **[NEW LINE]** key to enter the return code. The cursor will then move to the next line.
When using **[SIZE1**](14X07) character strings, the return code is automatically entered. Even if the return code is not entered manually, the return code is automatically entered if the number of characters exceeds the limit. In addition, for **[SIZE1**](14X07) character strings, word wrapping is available. Therefore, if the number of characters exceed the limit, the return code is inserted at the immediate previous space code to end the line at that point.

Previewing
While editing a character string, press the **[PRINT]** key to preview the character string (being edited). The following limitations apply:
1) The data is expanded according to the currently selected label format.
2) The print error screen is not displayed for expansion errors (for example, too many dots) or label size error. If an error occurs, only the miss-operation buzzer sounds.
3) Only two types of character strings can be previewed; commodity name and message.

Test feed
While editing a character string, press the **[PAPER FEED]** key to perform a test feed according to the currently selected label format.

Saving the edited character string

1. Conditions in which the save operation is possible
   1) Programming of a new character string
   2) Editing of an existing character string
   3) Copying of another character string

2. Process for saving the data when the condition (1) is met (the save confirmation pop-up screen appears)
   1) Press the **[MENU]** button on the screen or press the **[END]** key.
   2) Perform loading.

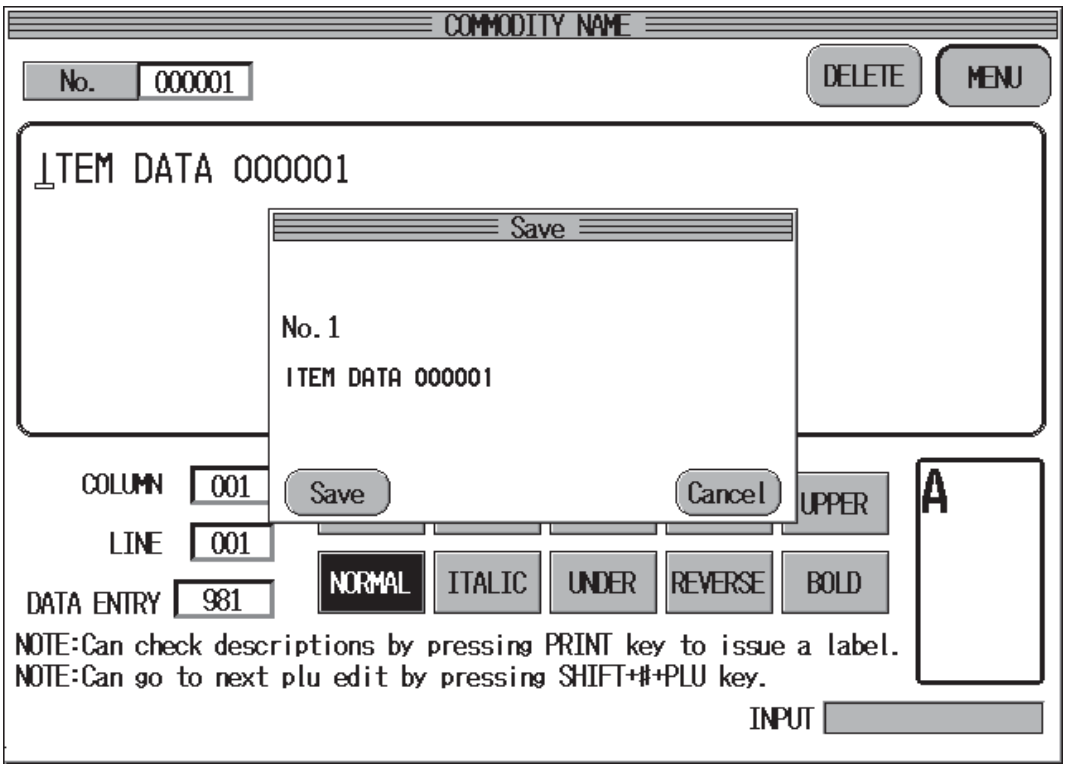
Deleting character string data

Press the **[DELETE]** button on the screen. The deletion confirmation pop-up screen used to delete the character string currently loaded, appears. If the data is a commodity name, the single item master is not deleted; only the commodity name data is deleted.
The NOTE message displays the preview print mode and consecutive commodity-loading mode as a message.

Display of NOTE message

Previewing procedure and succeeding loading procedure of a single item master is displayed.

6.2.2 SAVE CONFIRMATION POP-UP SCREEN



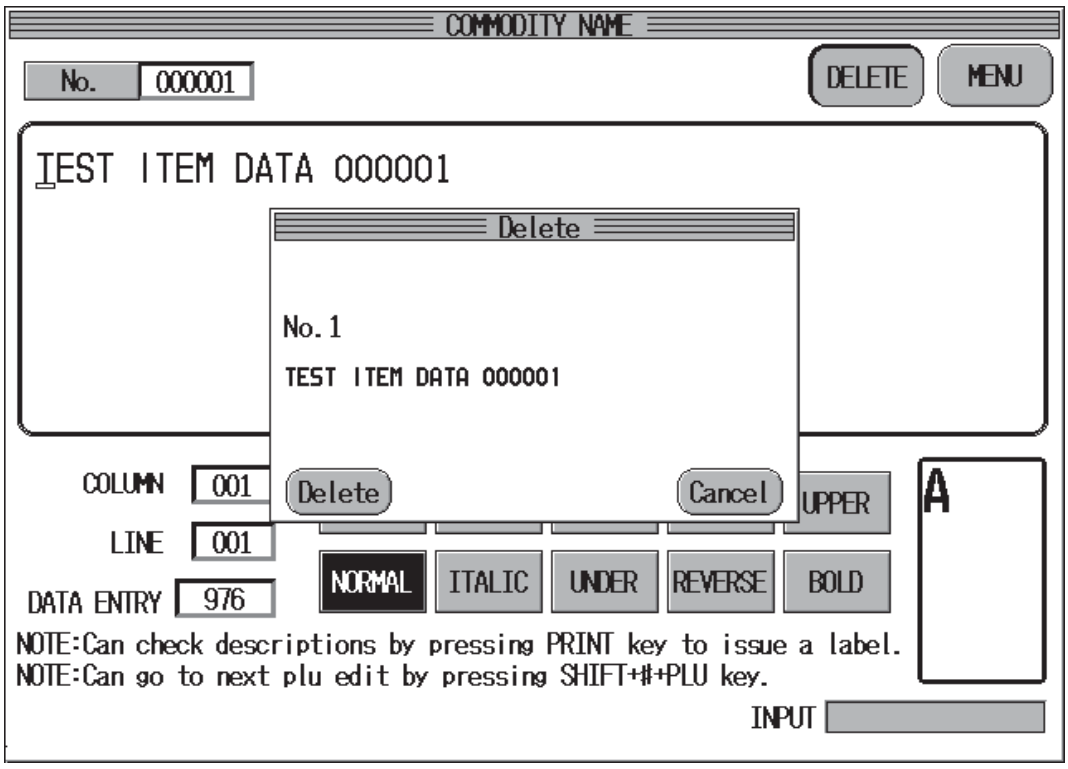
Executing save operation

Press the **[Save]** button on the pop-up screen to save the edited character string into the master. If this operation is executed by touching the **[MENU]** button on the screen or by pressing the **[END]** key, the display, after saving, returns to the screen that was displayed immediately before the character string edit screen. But if this operation is executed during loading, after saving, the character string edit screen for the loaded character string number is again displayed.

Canceling save operation

Press the **[Cancel]** button on the pop-up screen to cancel saving the edited character string. If this operation is executed by pressing the **[MENU]** button on the screen or by pressing the **[END]** key, the display, after the button is pressed, returns to the screen that was displayed immediately before the character string edit screen. But if this operation is executed during loading, after the button is pressed, the character string edit screen for the loaded character string number is again displayed.

6.2.3 DELETION CONFIRMATION POP-UP SCREEN



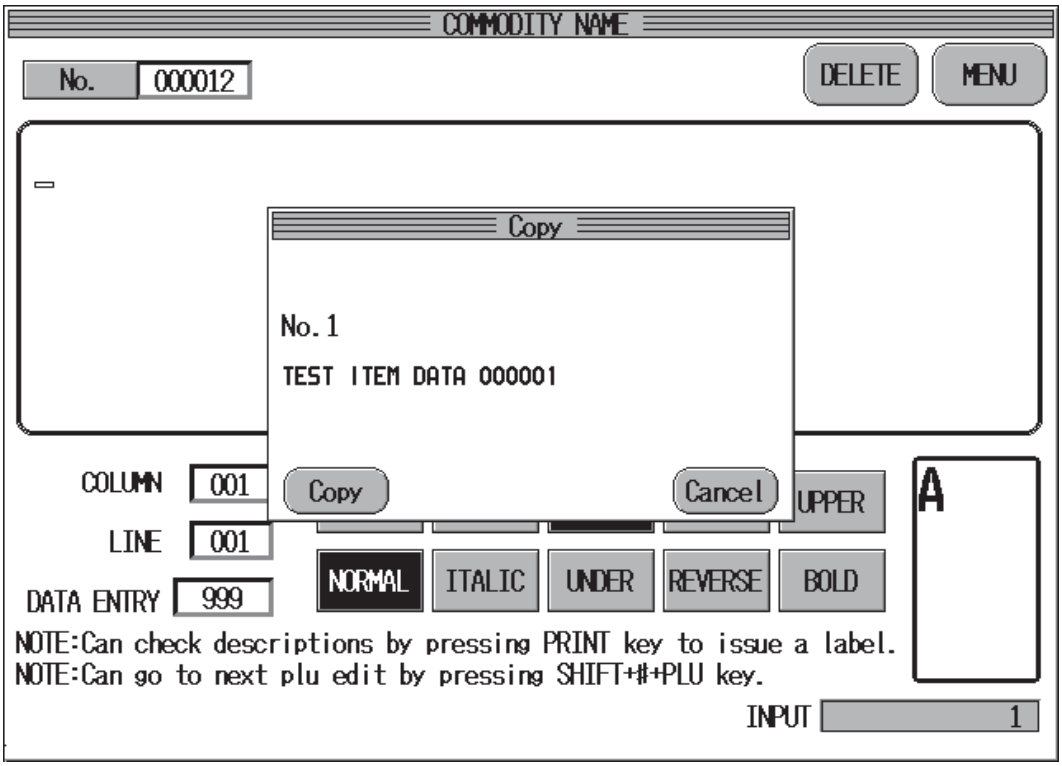
Executing deletion operation

Press the **[Delete]** button on the pop-up screen to delete the edited character string from the master. The display, after deletion, returns to the screen that was displayed immediately before the character string edit screen.

Canceling deletion operation

Press the **[Cancel]** button on the pop-up screen to cancel deleting the load character string. If this operation is executed by pressing the **[MENU]** button on the screen or by pressing the **[END]** key, the display, after the button is pressed, returns to the screen that was displayed immediately before the character string edit screen. But if this operation is executed during loading, after the button is pressed, the character string edit screen for the loaded character string number is again displayed.

6.2.4 COPY EXECUTION CONFIRMATION POP-UP SCREEN



Executing copy

Press the **[Copy]** button on the pop-up screen to execute the copy process. After copying, the copy-source character string is displayed in the character string display field. However, at this point, the data is not stored in the master. When the save process is executed, the data is then stored in the master.

Canceling copy

Press the **[Cancel]** button on the pop-up screen to cancel copy process and close the dialog box.

6.2.5 EDITOR SPECIFICATION

1. Character sizes (14X07, 20X10, 30X15, 40X20, 60X30, 80X40, 120X60)
   (Note that different size characters cannot exist in the same line.)

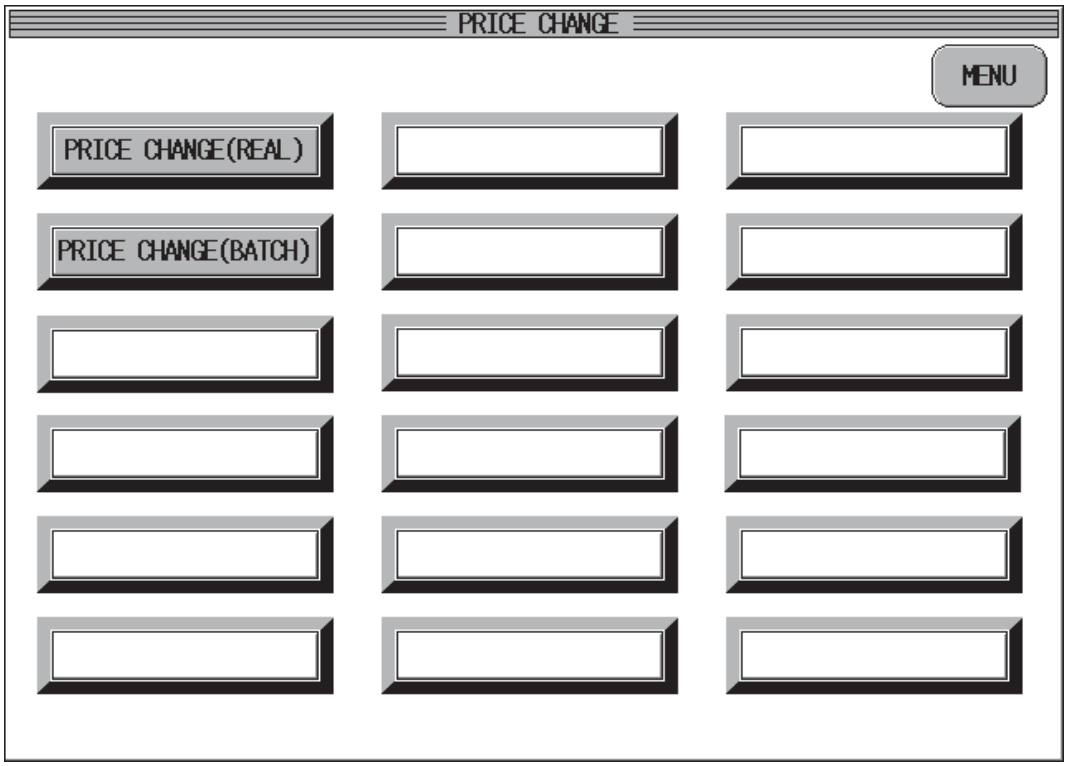
   Valid character size
   All of the 7 types shown above are available for the commodity name and message.
   The store name can be displayed only in 14X07 and 20X10.
   Others are displayed only in 14X07.
2. Character styles (bold, underline, highlighted, italic)
3. ASCII character entry using the membrane key or 101 personal computer keyboard
4. Maximum number of registerable characters (including control codes)

Commodity name:	999 characters
Extra message:	999 characters
Store name:	35 characters
Address:	46 characters
Department name:	14 characters
Class name:	14 characters
Tray name:	18 characters
5. Only for the 14X07 character sizes, if the number of characters exceed the limit, the return code is automatically entered. In addition, word wrapping is available to enter the return code, so that there will not be any broken words at the lines' end.

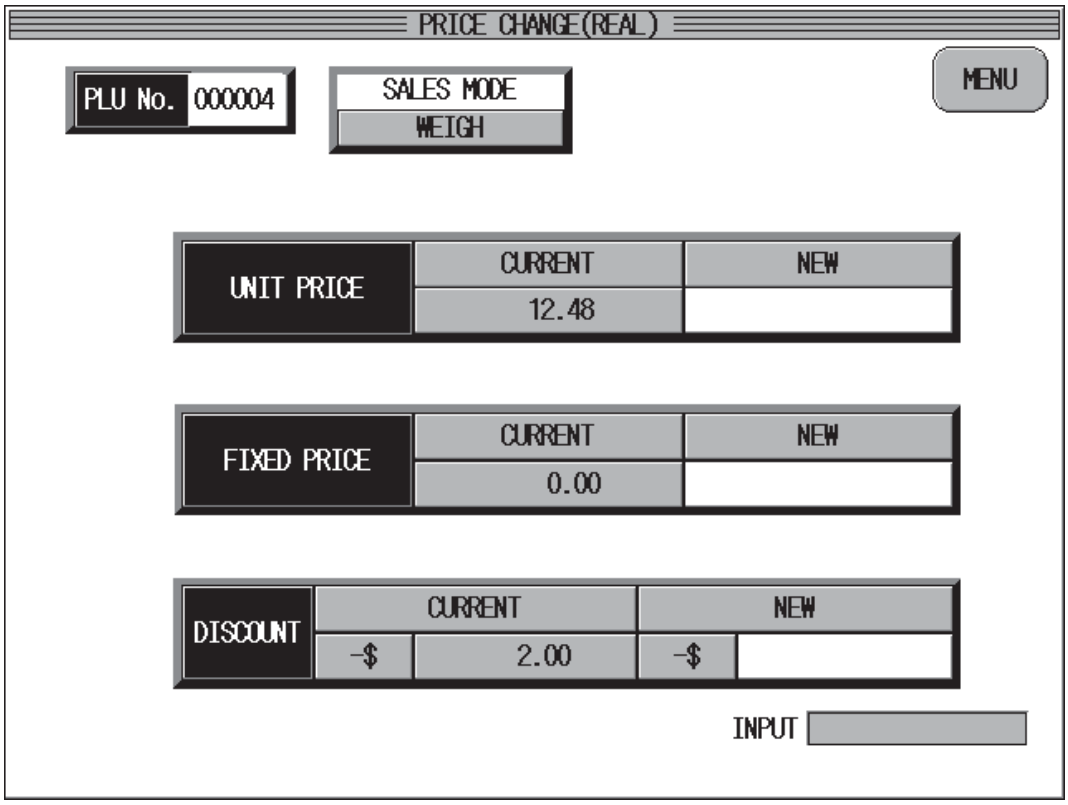
6.3 PRICE CHANGE

6.3.1 PRICE CHANGE EDIT SCREEN

There are two ways of changing item pricing information. Price Change (Real-Time) is used to change a price (unit price/fixed price/discount price) for a selected item on a real-time basis. Price Change (Batch Process) is used to program price change information for multiple items to perform price change on a batch basis.



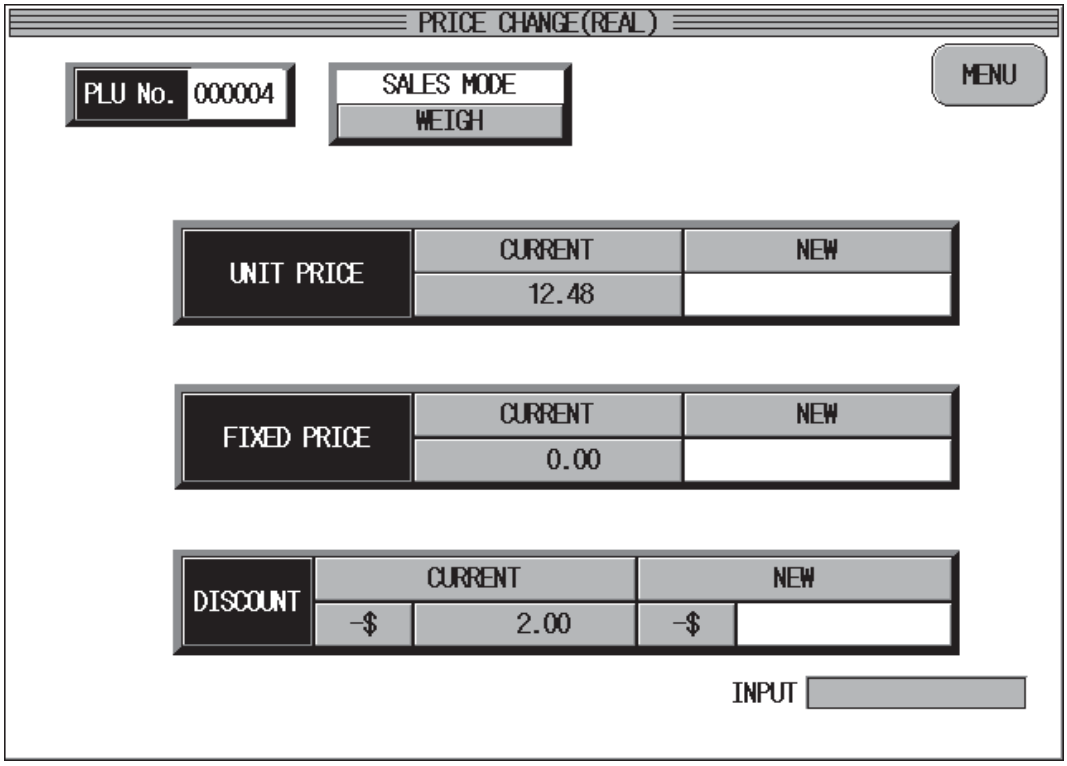
6.3.2 PRICE CHANGE (REAL) EDIT SCREEN



Used to change the current price to a new price that will be available for future use.
Press the **[PRICE CHANGE (REAL)]** button on the screen. The Price Change (Real) screen will then be displayed. Call-up the PLU item which requires a price change, enter the PLU number using the numeric keypad and press the **[PLU]** key on the key sheet.

When the PLU item is called-up, the current price information will be displayed. Enter the new price information using the numeric keypad on the key sheet and press the field where the entry has been made.

6.3.3 PRICE CHANGE (BATCH) EDIT SCREEN



Executing Price Change
All new prices will be changed when the **[EXEC.]** button is pressed on the screen. New prices will then be available for future use.
Press the **[PRICE CHANGE (BATCH)]** button on the Price Change screen. The Price Change (Batch) screen will then be displayed with items whose new prices have been previously programmed in the list.

Adding an item to the list
Call-up the PLU item which requires a price change by entering the PLU number using the keypad and press the **[PLU]** key on the key sheet. The current price and price type of the item will then appear. Enter new price information using the numeric keypad on the key sheet and press the field where the new price information has been entered. Press the **[EXEC.]** button on the screen to execute the changes to all listed items in the batch file.

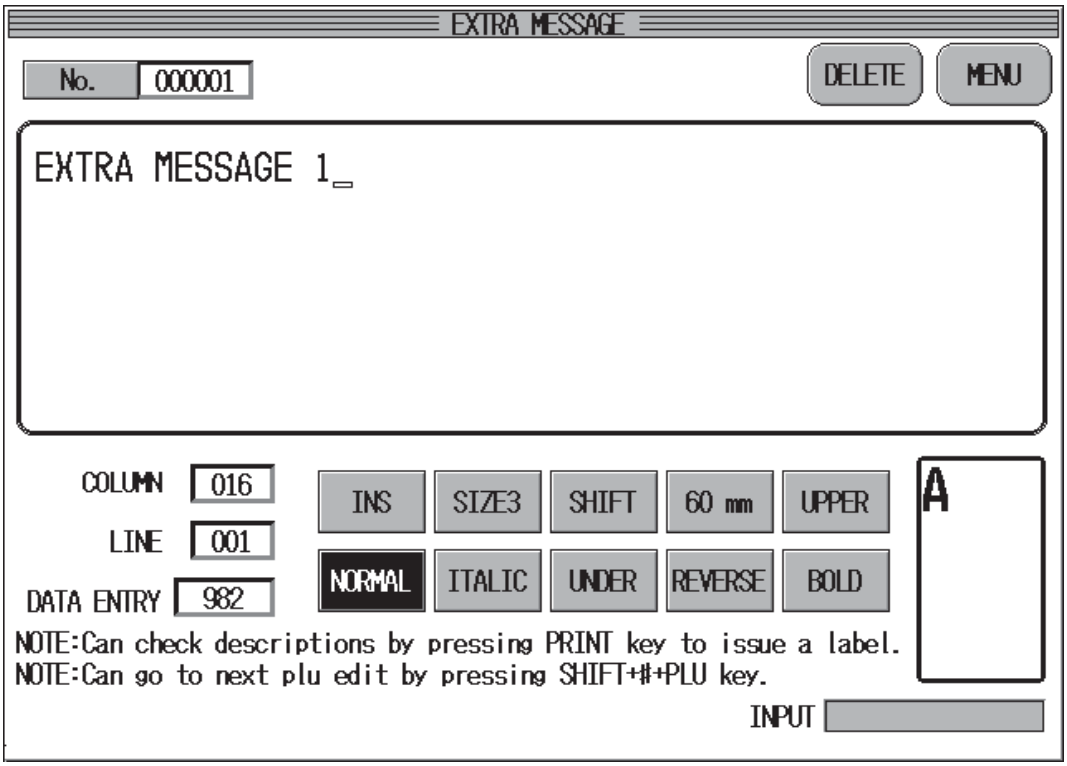
Deleting Listed Prices
Press the **[PRICE CHANGE (BATCH)]** button on the Price Change screen. The Price Change (Batch) screen will then be displayed. Items that have been previously programmed, will also appear.

To delete the programmed PLU, select it by pressing the **[PLU No.]** area on the screen. The selected PLU number will then be highlighted. Press the **[DELETE]** button on the screen and the Delete Confirmation screen will then be displayed. Press the **[Delete]** button on the pop-up screen and the selected item data will then be deleted.

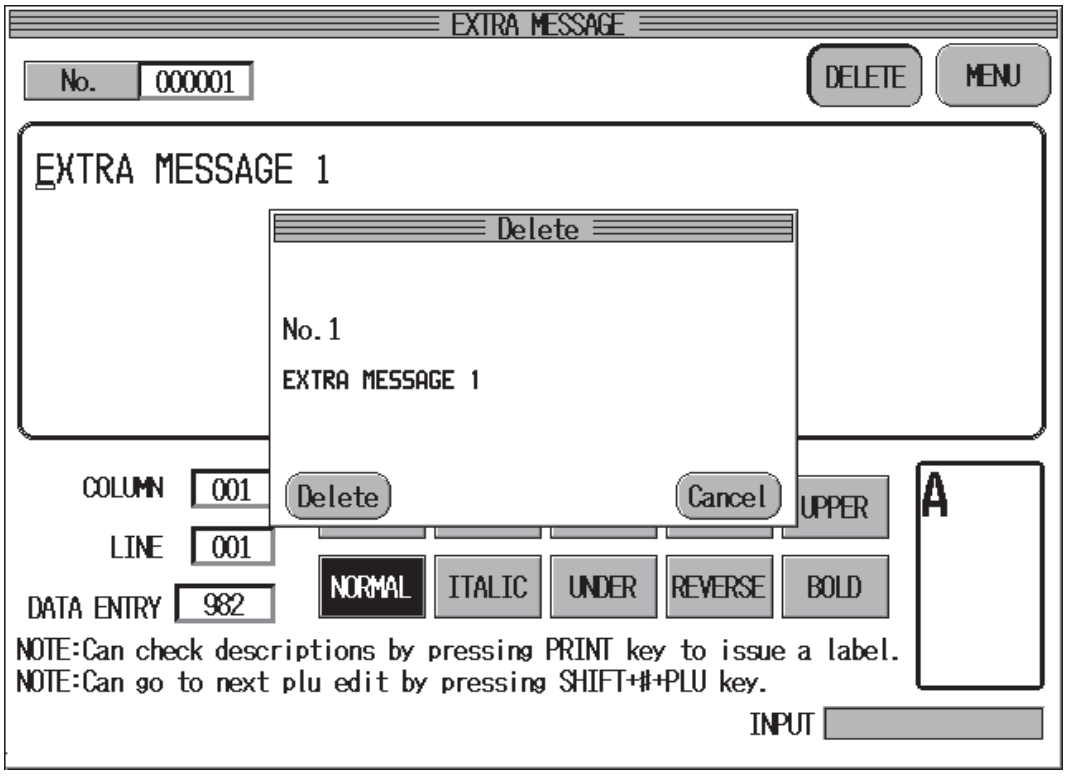
6.4 EXTRA MESSAGE

6.4.1 EXTRA MESSAGE EDIT SCREEN

This section explains how to edit extra message data using the edit screen. A maximum number of seven different character sizes are available for a maximum of 999 characters. It is not possible to mix character sizes within a single line.



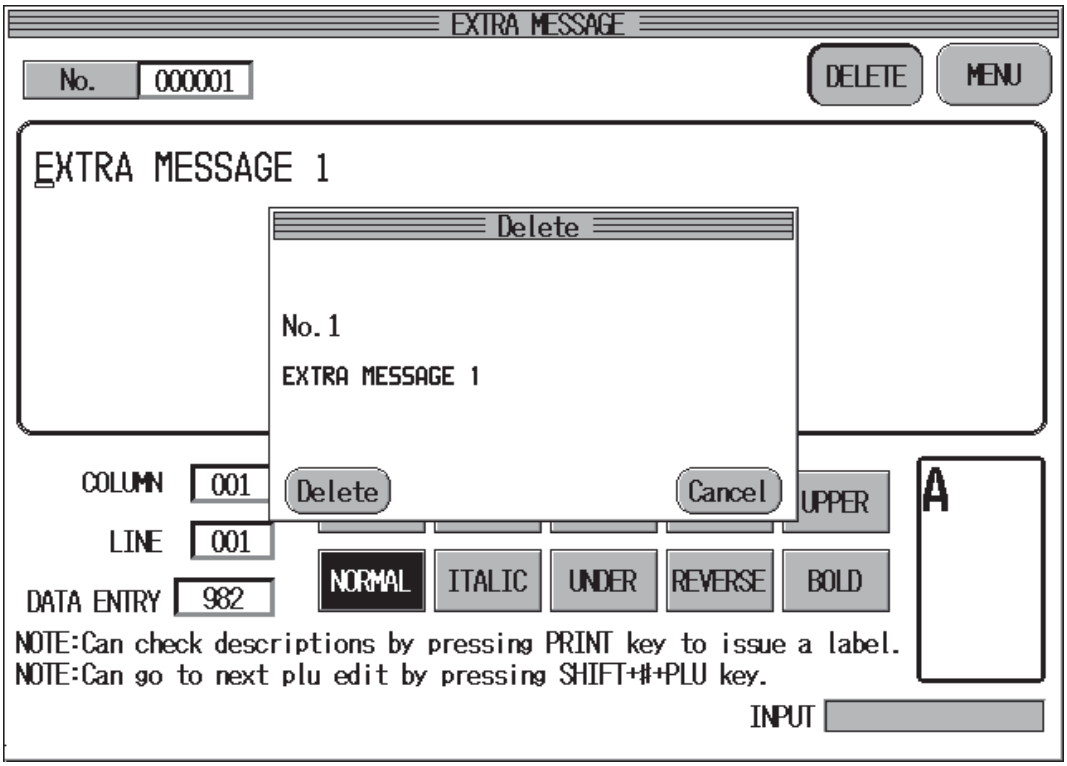
6.4.2 SAVE CONFIRMATION POP-UP SCREEN



Saving Extra Message Data
First, ensure that numeric data entry is possible in the INPUT field. If not possible, press the **[SHIFT]** button on the screen to enable numeric data entry and then call up the Extra Message screen.

To save the extra message data, enter text using the key sheet. Press the **[MENU]** button on the screen, and the Save pop-up screen will appear asking for confirmation. Press the **[Save]** button on the pop-up screen.

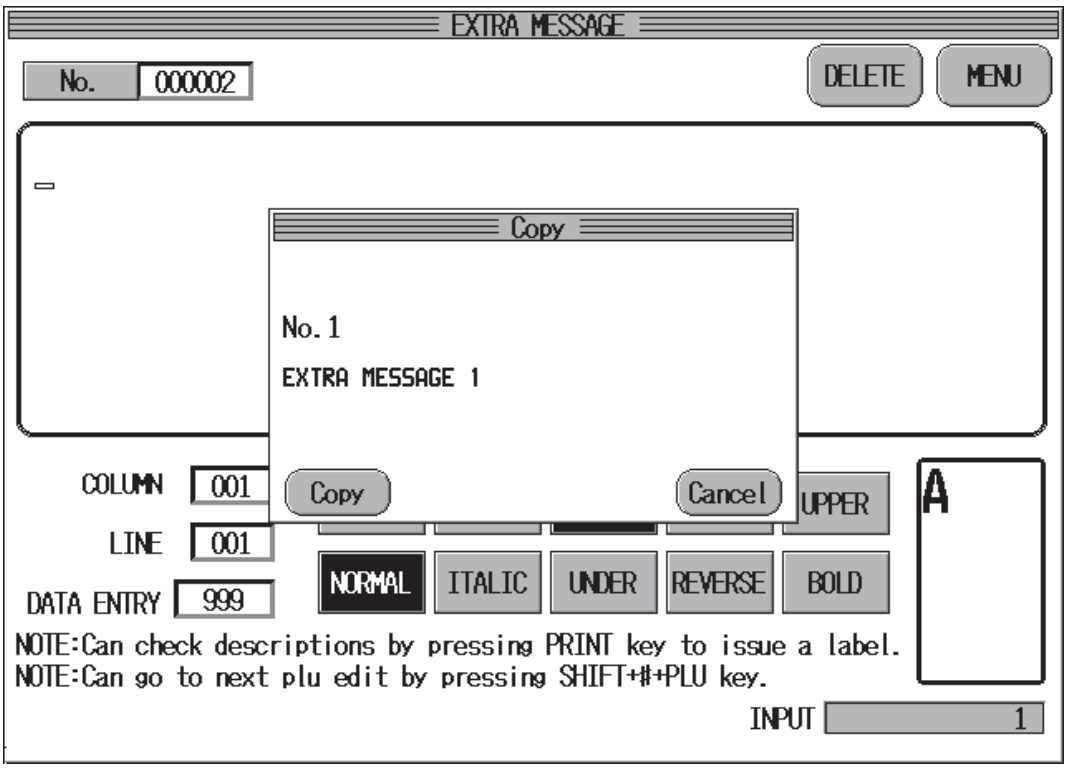
6.4.3 DELETE CONFIRMATION POP-UP SCREEN



Deleting Extra Message Data
Press the **[DELETE]** button on the screen, and the Delete pop-up screen will appear asking for confirmation. Press the **[Delete]** button on the pop-up screen.

In order to go to the next message, first press the **[SHIFT]** button on the screen to accept the numeric data entered in the INPUT field, then enter the desired message number using the numeric keypad, and press the **[PLU]** key on the key sheet.

6.4.4 COPY CONFIRMATION POP-UP SCREEN

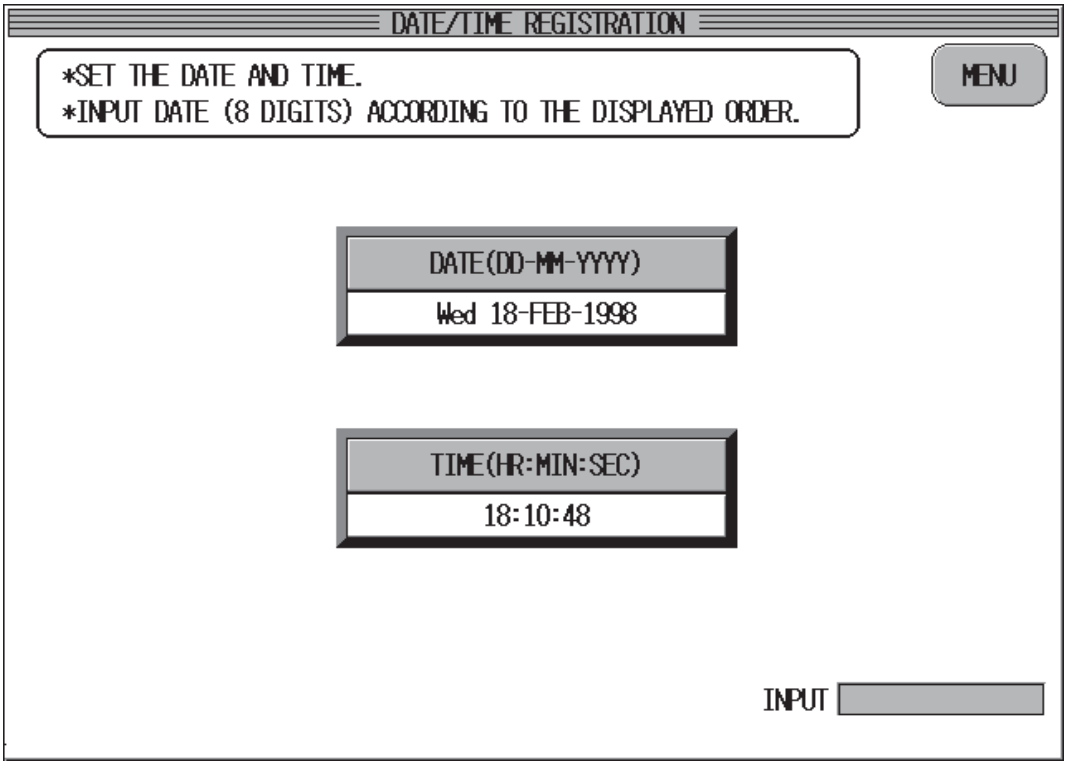


Copying Extra Message Data
First, ensure that numeric data entry is possible in the INPUT field. If not possible, press the **[SHIFT]** button on the screen to enable numeric data entry.

Call up the Extra Message screen the data will be copied to. After pressing the **[SHIFT]** button on the screen, enter the Message No. of the data to be copied, then the Copy pop-up screen will appear asking for confirmation. To copy the data, press the **[Copy]** button on the pop-up screen. The extra message will then be displayed in the text display area of the receiving message.

6.5 DATE/TIME REGISTRATION

DATE/TIME REGISTRATION EDIT SCREEN



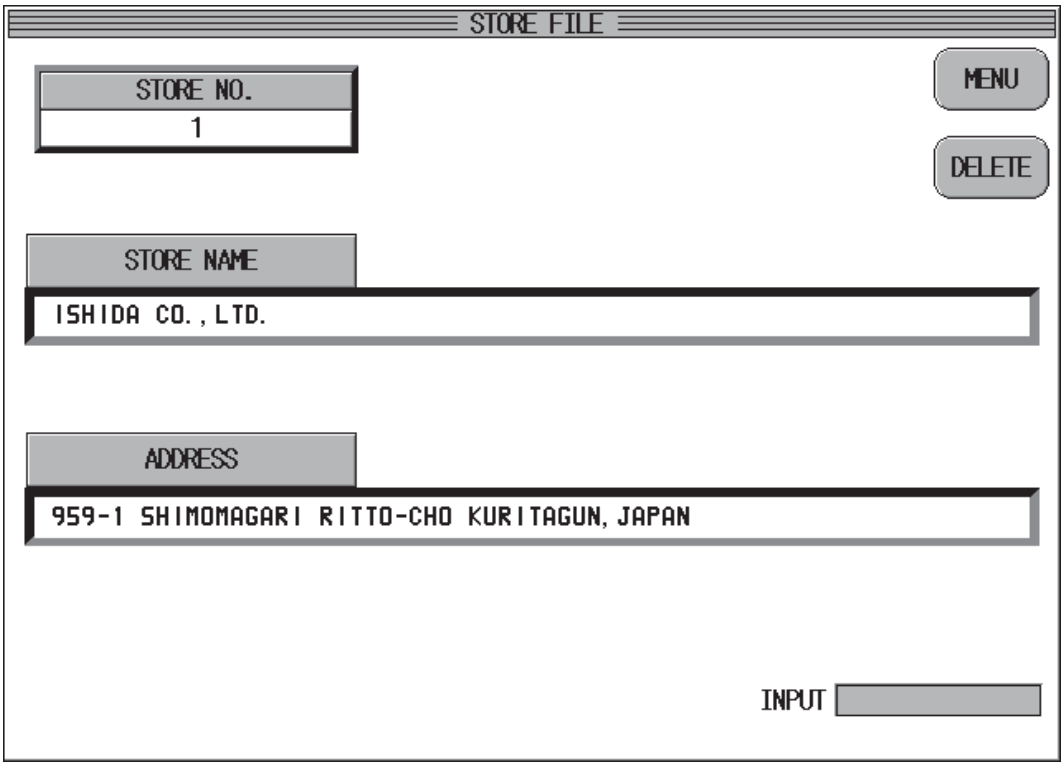
Registering the present date
The entry order must be the same as the display order (8 digits). Enter the 8-digit data and then press the **[DATE(MM-DD-YYYY)]** button on the screen or the date display field to set the data.

Registering the present time
In the order of hour (hh), minute (mm), and second (ss), enter the 6-digit data and then press the **[TIME(HR:MIN:SEC)]** button on the screen or the time display field to set the data.

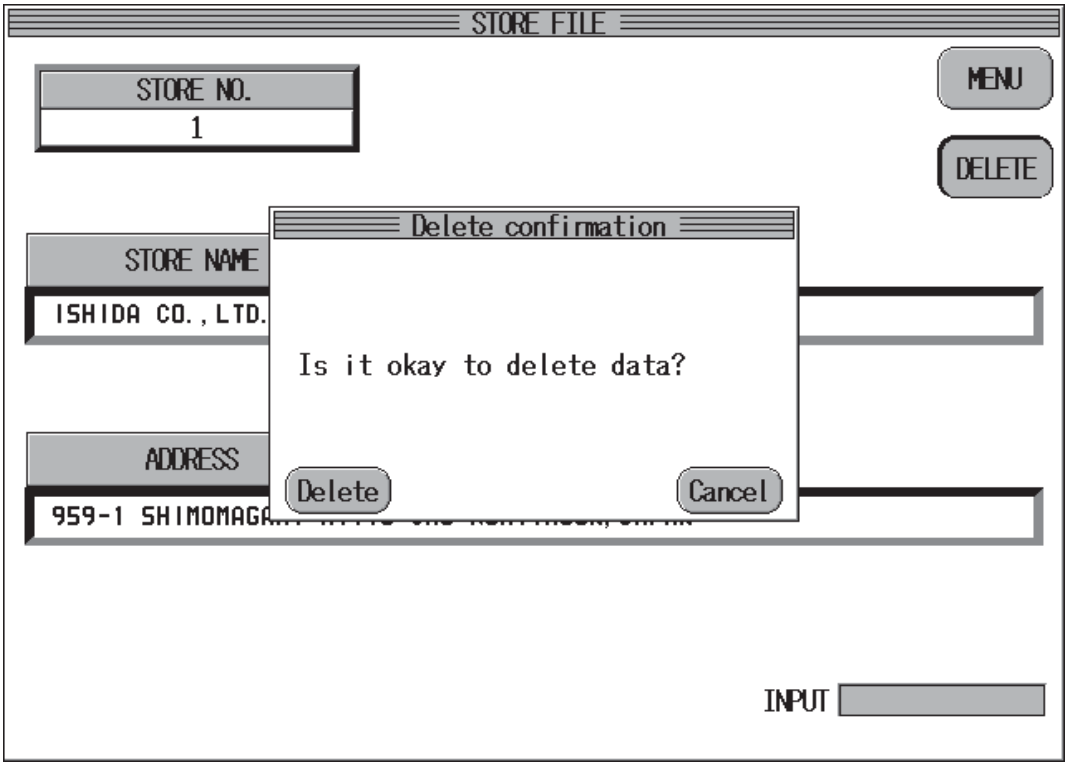
6.6 STORE NAME/ADDRESS

6.6.1 STORE FILE EDIT SCREEN

This section explains how to edit the store name/address data using the edit screens. Two different character sizes (14X07 and 20X10) are available for a maximum of 35 characters for store name and 1 character size (14X07) is available for a maximum of 46 characters for store address.



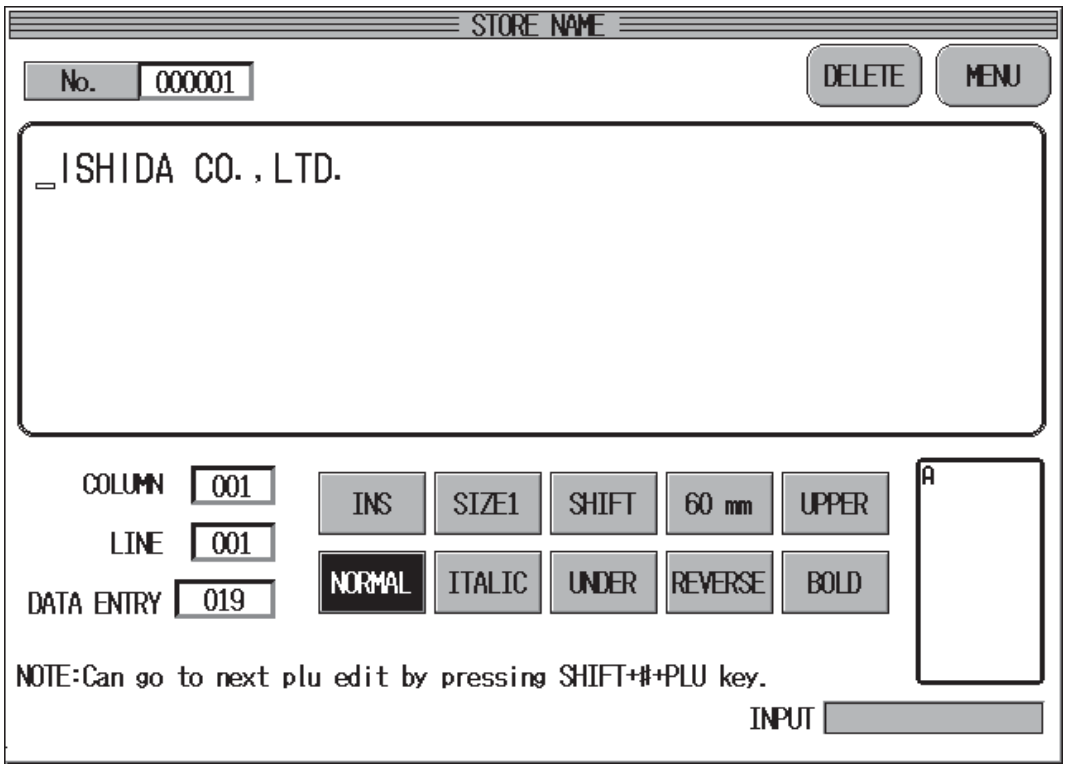
6.6.2 STORE FILE DELETE CONFIRMATION POP-UP SCREEN



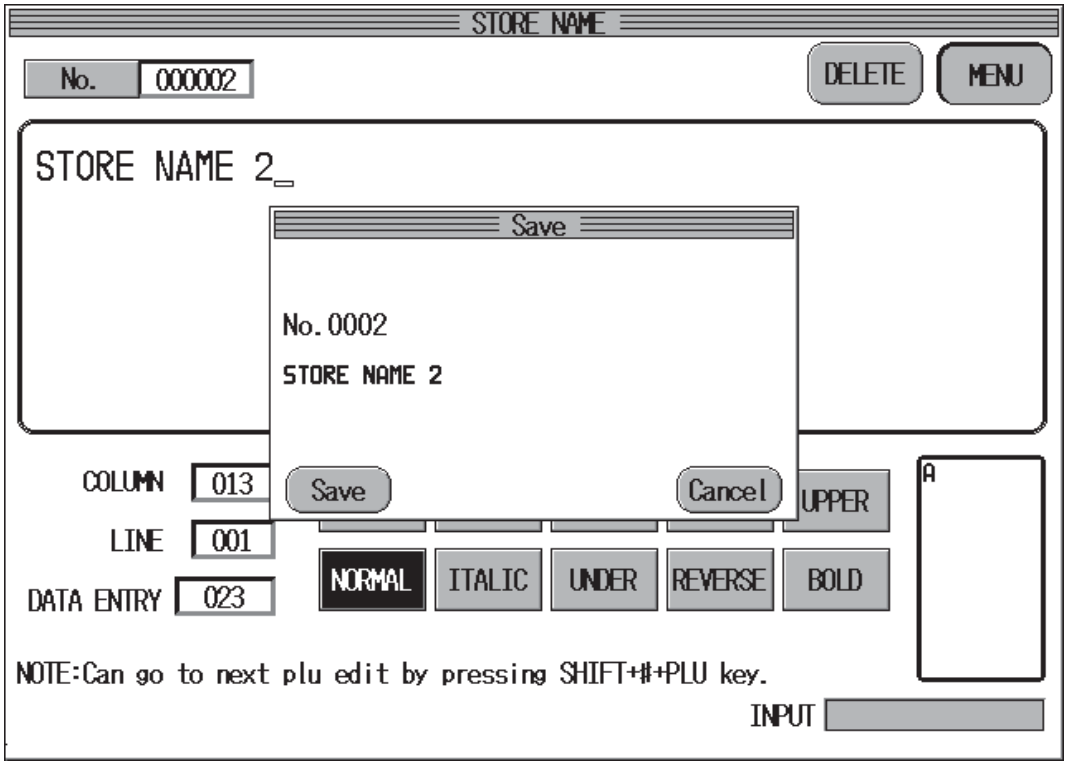
Deleting a Store File
Call-up the store file by entering the store number using the numeric keypad on the key sheet and press either the **[STORE NO.]** button on the screen, or the **[PLU]** key on the key sheet.

To delete the store file, press the **[DELETE]** button on the Store File screen. The Delete pop-up screen will then appear, asking for confirmation. Press the **[Delete]** button on the pop-up screen.

6.6.3 STORE NAME EDIT SCREEN



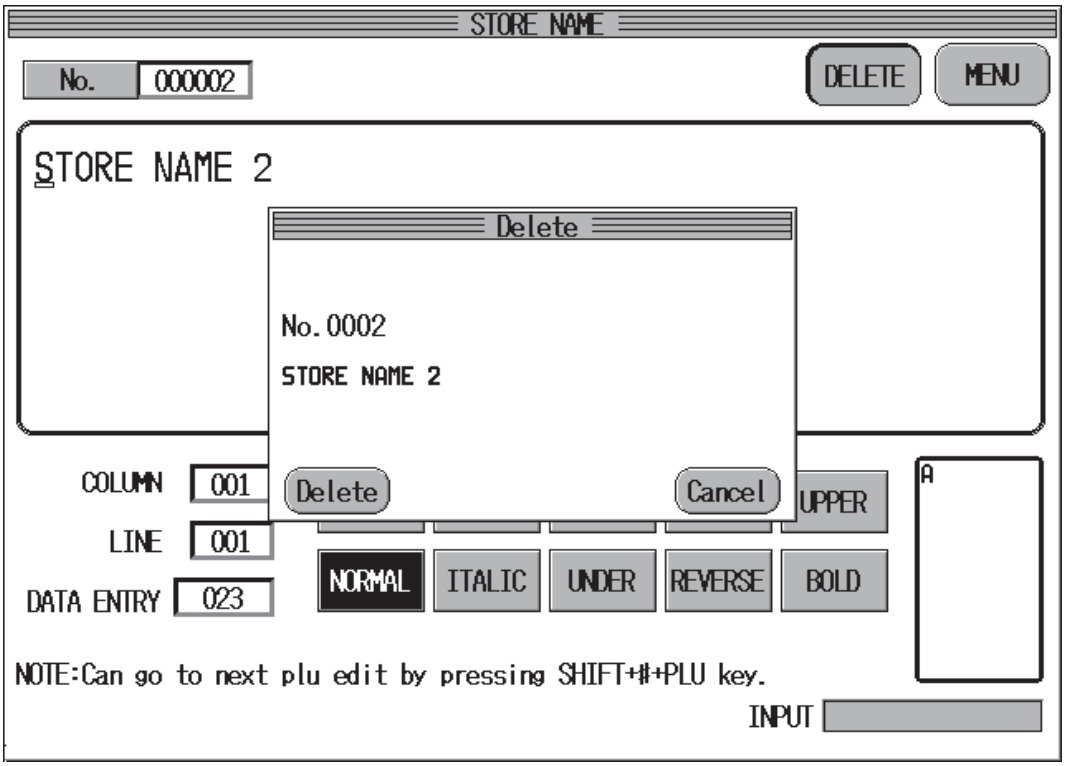
6.6.4 STORE NAME SAVE CONFIRMATION POP-UP SCREEN



Saving Store Name Data
For saving the store name data, ensure that numeric data entry is possible in the INPUT field.
If not possible, press the **[SHIFT]** button on the screen to enable numeric data entry.
Call up the Store File screen, and press the **[STORE NAME]** button on the screen. The Store Name screen will then appear.

To save the data, edit the text using the key sheet. Press the **[MENU]** button on the screen, and the Save pop-up screen will appear asking for confirmation. Press the **[Save]** button on the pop-up screen.

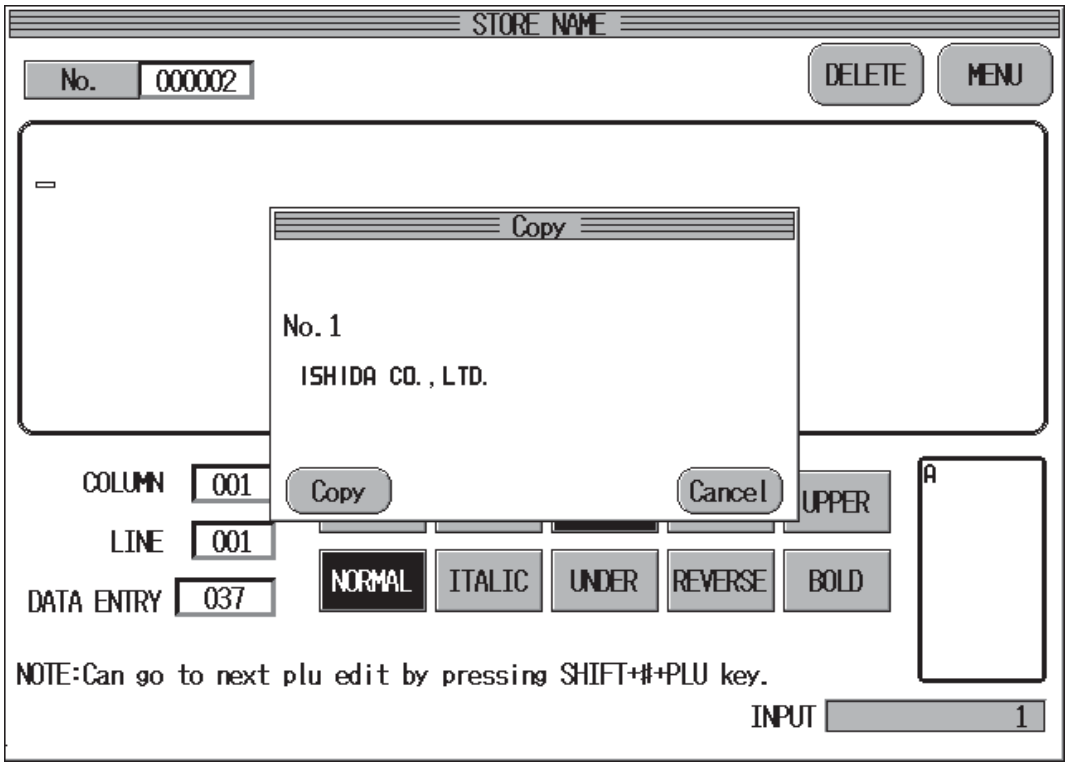
6.6.5 STORE NAME DELETE CONFIRMATION POP-UP SCREEN



Deleting Store Name Data
Press the **[Delete]** button on the screen, and the Delete pop-up screen will appear asking for confirmation. Press the **[Delete]** button on the pop-up screen.

In order to go to the next store file, first press the **[Shift]** button on the screen to accept the numeric data entered in the INPUT field, then enter the desired store number using the numeric keypad, and press the **[PLU]** key on the key sheet.

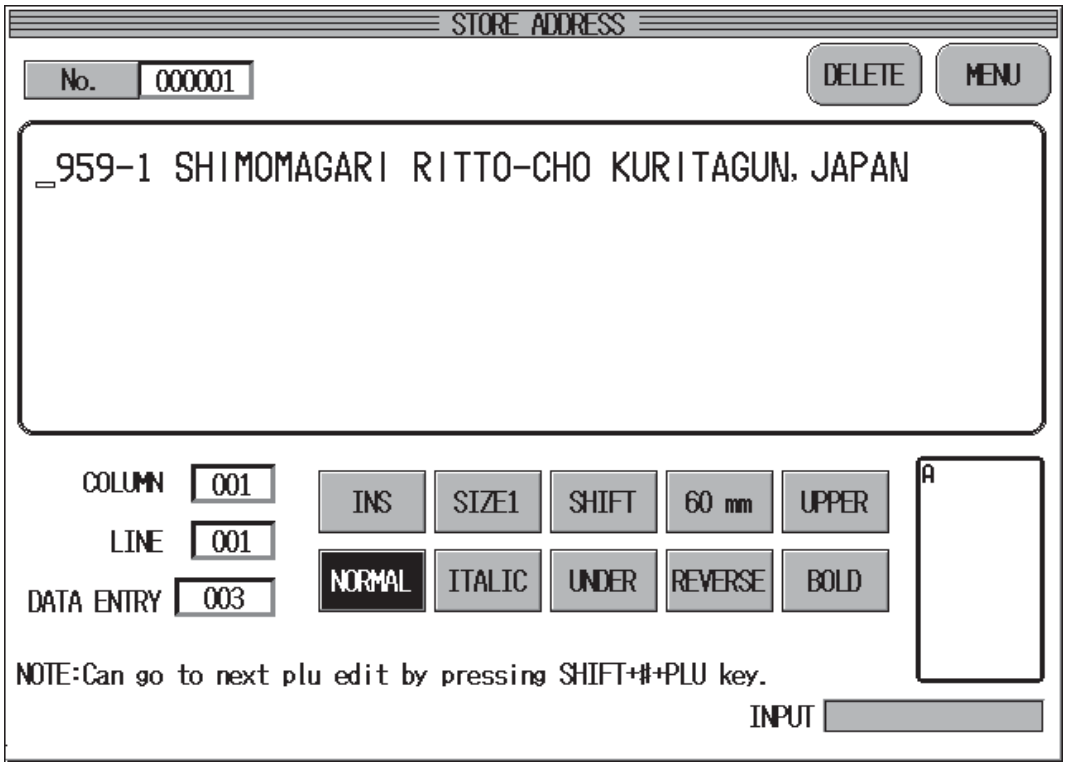
6.6.6 STORE NAME COPY CONFIRMATION POP-UP SCREEN



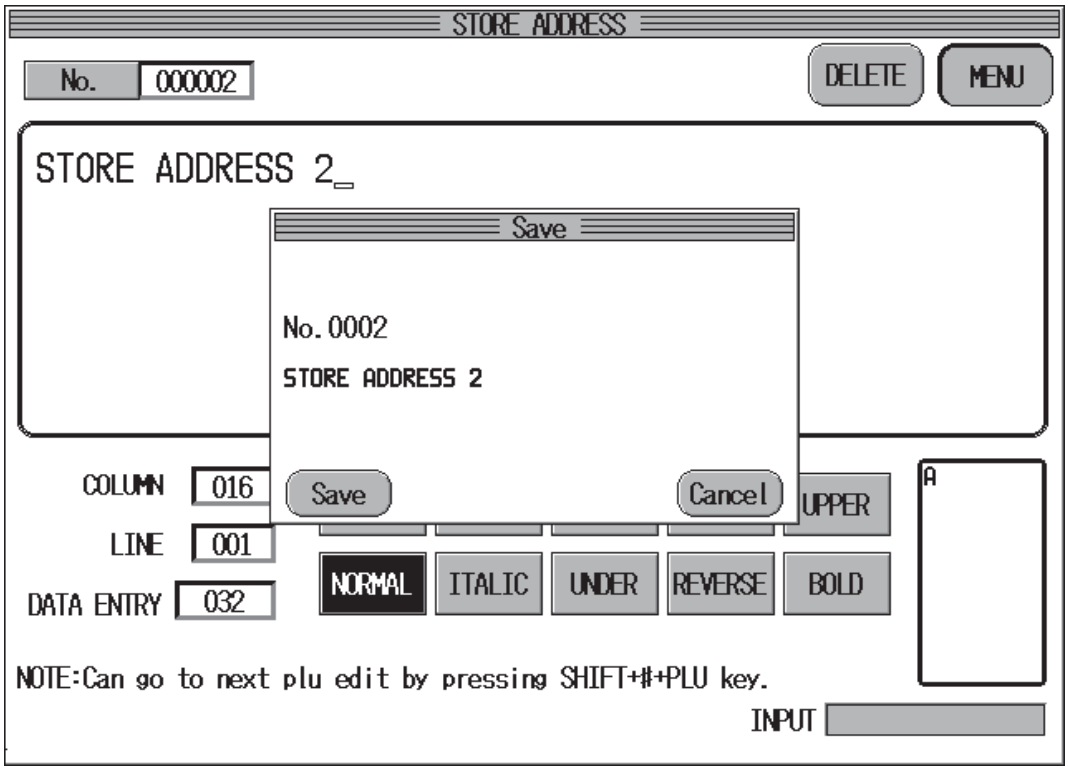
Copying Store Name
First, ensure that numeric data entry is possible in the INPUT field. If not possible, press the **[SHIFT]** button on the screen to enable numeric data entry. Call up the Store Name screen to be copied to.

Enter the store file number to be copied in the INPUT field of the store file being copied to and press the **[PLU]** key on the key sheet. The Copy pop-up screen will then appear asking for confirmation. Press the **[Copy]** button on the pop-up screen. The data being copied will then be displayed in the text display area of the store file being copied to.

6.6.7 STORE ADDRESS EDIT SCREEN



6.6.8 STORE ADDRESS SAVE CONFIRMATION POP-UP SCREEN

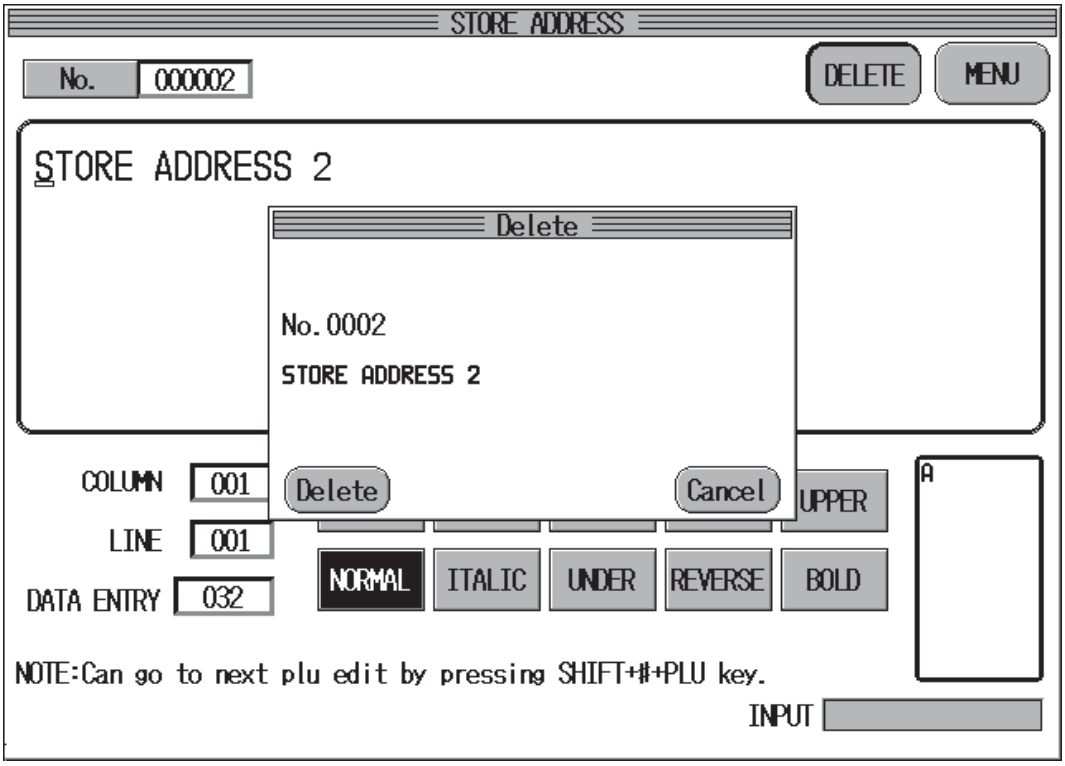


Saving Store Address Data
For saving the store address data, ensure that numeric data entry is possible in the INPUT field. If not possible, press the **[SHIFT]** button on the screen to enable numeric data entry.

Call up the Store Address screen, and press the **[ADDRESS]** button on the screen. The Store Address screen will then appear.

To save the data, edit the text using the key sheet. Press the **[MENU]** button on the screen, and the Save pop-up screen will appear asking for confirmation. Press the **[Save]** button on the pop-up screen.

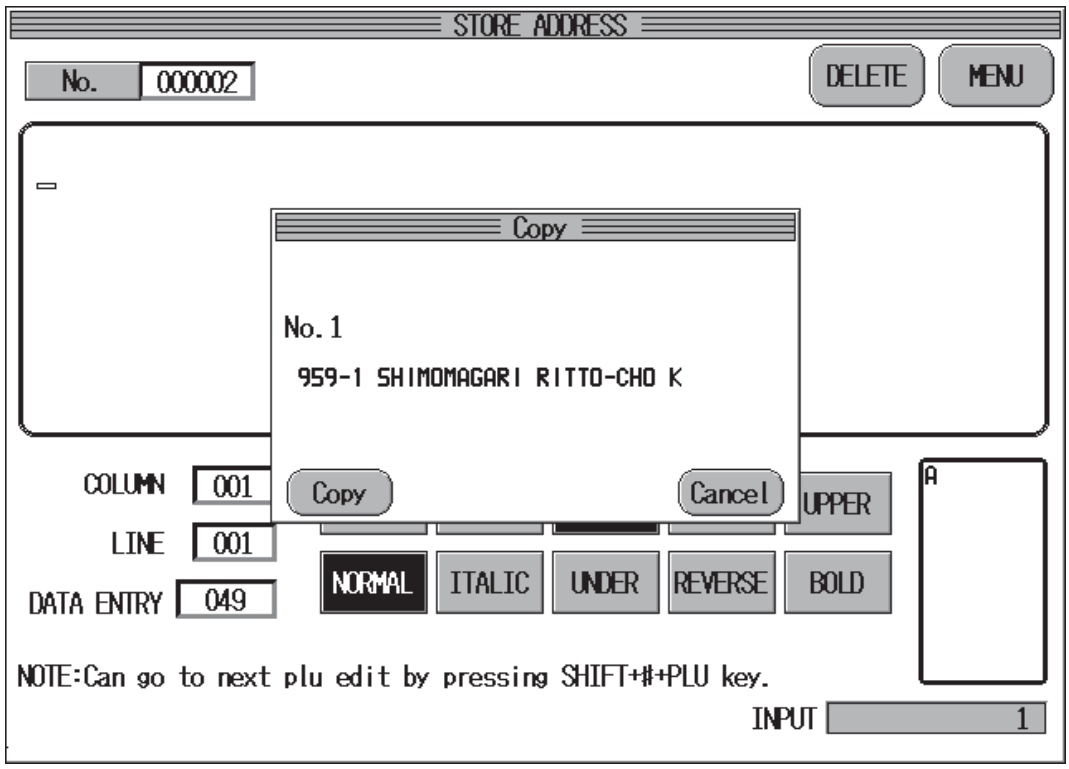
6.6.9 STORE ADDRESS DELETE CONFIRMATION POP-UP SCREEN



Deleting Store Address File

Call-up the store address file by entering the store address number using the numeric keypad on the key sheet and press either the **[ADDRESS NO.]** button on the screen, or the **[PLU]** key on the key sheet. For deleting the address file, press the **[DELETE]** button on the Store Address screen. The Delete pop-up screen will then appear, asking for confirmation. Press the **[Delete]** button on the pop-up screen.

6.6.10 STORE ADDRESS COPY CONFIRMATION POP-UP SCREEN



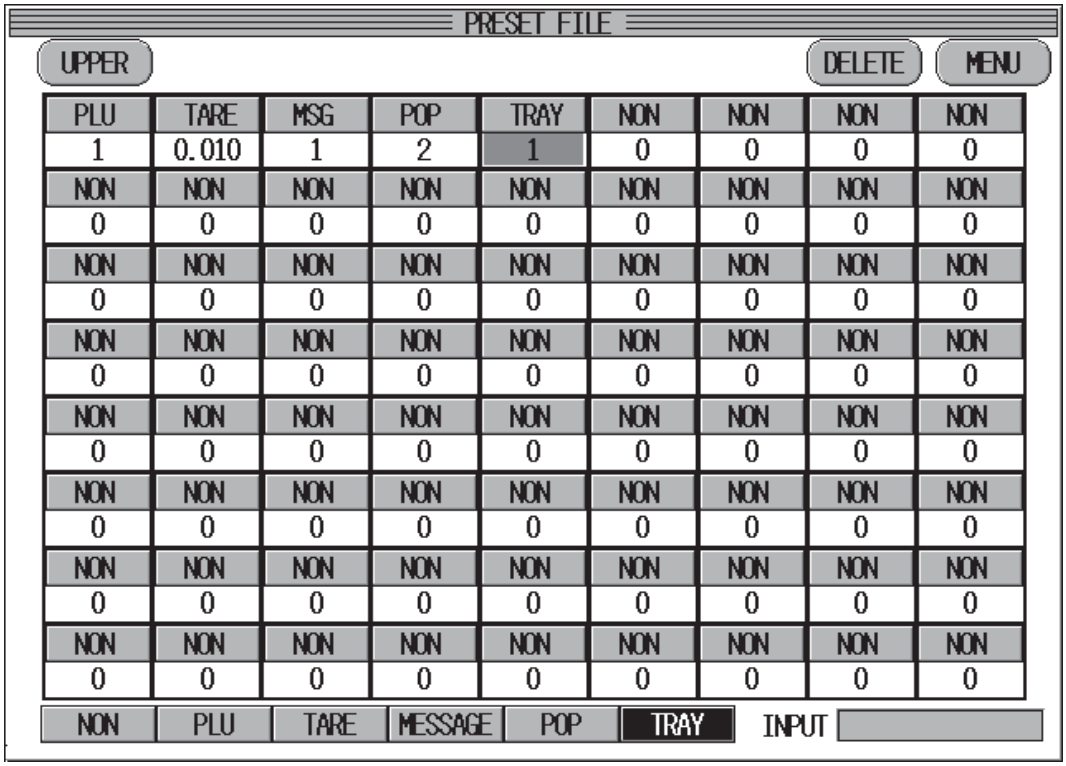
Copying Store Address

First, ensure that numeric data entry is possible in the INPUT field. If not possible, press the **[SHIFT]** button on the screen to enable numeric data entry. Call up the Store Address screen that the data will be copied to.

Enter the store address number to be copied in the INPUT field of the store address file being copied to and press the **[PLU]** key on the key sheet. The Copy pop-up screen will then appear asking for confirmation. Press the **[Copy]** button on the pop-up screen. The copied data will then be displayed in the text display area of the store address screen.

6.7 PRESET

6.7.1 PRESET FILE EDIT SCREEN


PRESET FILE
UPPER
DELETE
MENU
PLU TARE MSG POP TRAY NON NON NON NON
1 0.010 1 2 1 0 0 0 0
NON NON NON NON NON NON NON NON NON
0 0 0 0 0 0 0 0 0
NON NON NON NON NON NON NON NON NON
0 0 0 0 0 0 0 0 0
NON NON NON NON NON NON NON NON NON
0 0 0 0 0 0 0 0 0
NON NON NON NON NON NON NON NON NON
0 0 0 0 0 0 0 0 0
NON NON NON NON NON NON NON NON NON
0 0 0 0 0 0 0 0 0
NON NON NON NON NON NON NON NON NON
0 0 0 0 0 0 0 0 0
NON NON NON NON NON NON NON NON NON
0 0 0 0 0 0 0 0 0
NON PLU TARE MESSAGE POP TRAY INPUT

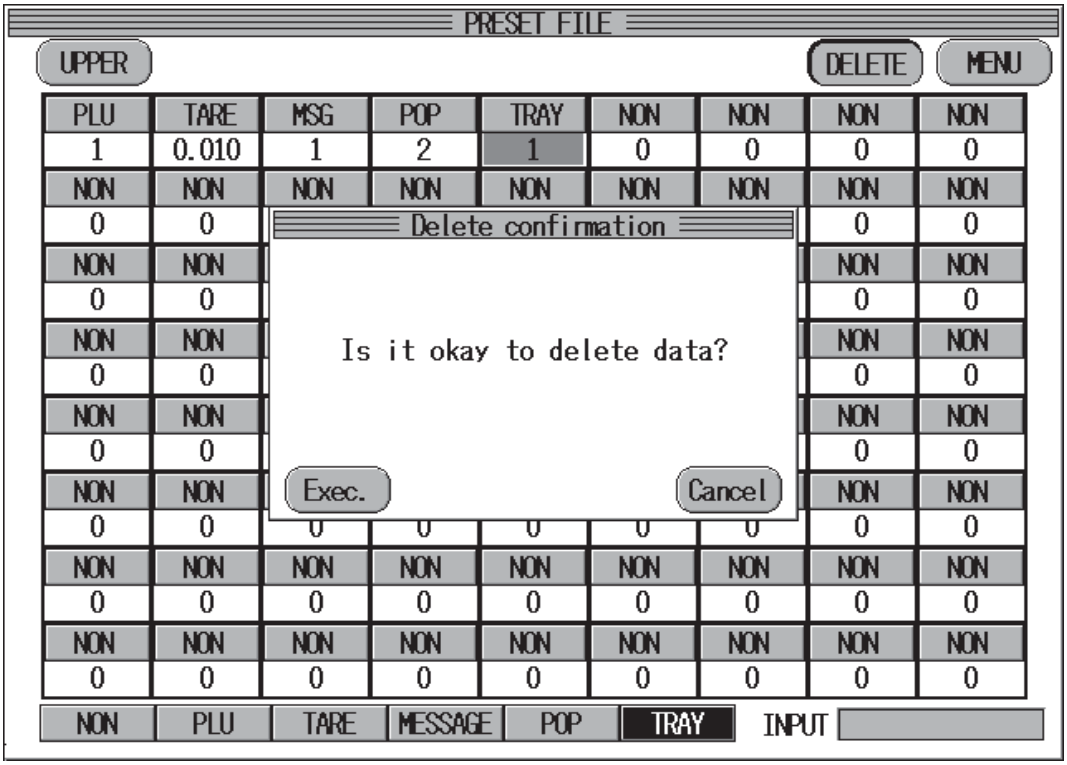
Preset Item Selection
Select the desired item by pressing one of the following six buttons; **[NON]**, **[PLU]**, **[TARE]**, **[MESSAGE]**, **[POP]** or **[TRAY]** on the screen. The selected button will then be highlighted.

Preset Data Programming
After an item has been selected, enter the data and press the preset key button on the screen.
The preset information will then be programmed. The upper column of the preset key displays the item, and the lower column displays the programmed data. The preset key layout corresponds with the preset key layout on the key sheet.

Preset Key Master Deletion
By pressing the **[DELETE]** button on the screen, the Preset File delete confirmation screen will be displayed.

Preset Key Upper/Lower Level Switching
To switch between upper/lower preset levels, press the **[UPPER/LOWER]** button the screen.
This button toggles the display between upper and lower level, and also functions as a status display.

6.7.2 DELETE CONFIRMATION POP-UP SCREEN

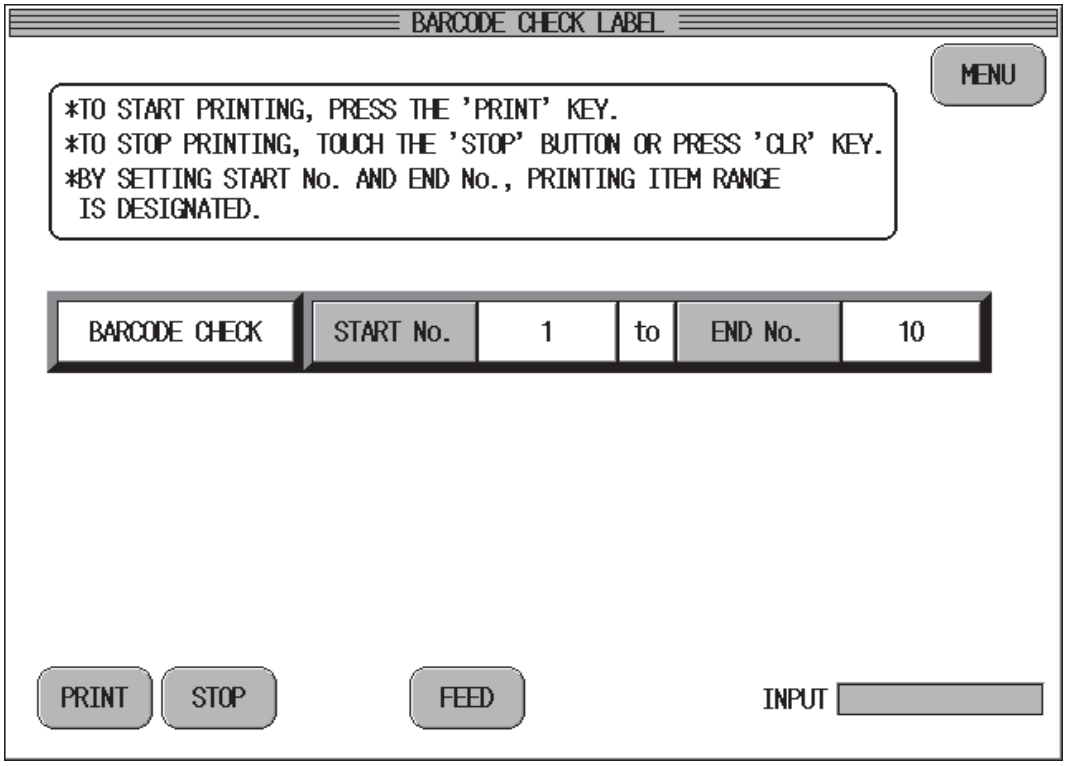


Executing Delete
All preset data (upper/lower level) will be deleted by pressing the **[Exec.]** button on the pop-up screen. After deletion is completed, the screen will return to the Main Menu of normal mode.

Canceling Delete
Preset master data deletion will be cancel by pressing the **[Cancel]** button on the pop-up screen. After cancellation, the screen will return to the Main Menu of normal mode.

6.8 BARCODE CHECK LABEL

BARCODE CHECK LABEL SCREEN



Issue Start/End Item Number Programming

1. After item number entry, press the **[START No.]** button on the screen to program the issue start item number.
2. After item number entry, press the **[END No.]** button on the screen to program the issue end item number.

   Note: Both numbers are initially programmed at a maximum and minimum numbers of existing items.

Label Issue

After the above programming is finished, press either the **[PRINT]** button on the screen or the **[PRINT]** key on the keysheet to start printing.

Label Issue Interruption

1. When either the **[STOP]** button on the screen or the **[CLR]** key on the keysheet is pressed, printing will be interrupted.
2. Printing will resume when the label issue process is performed again.

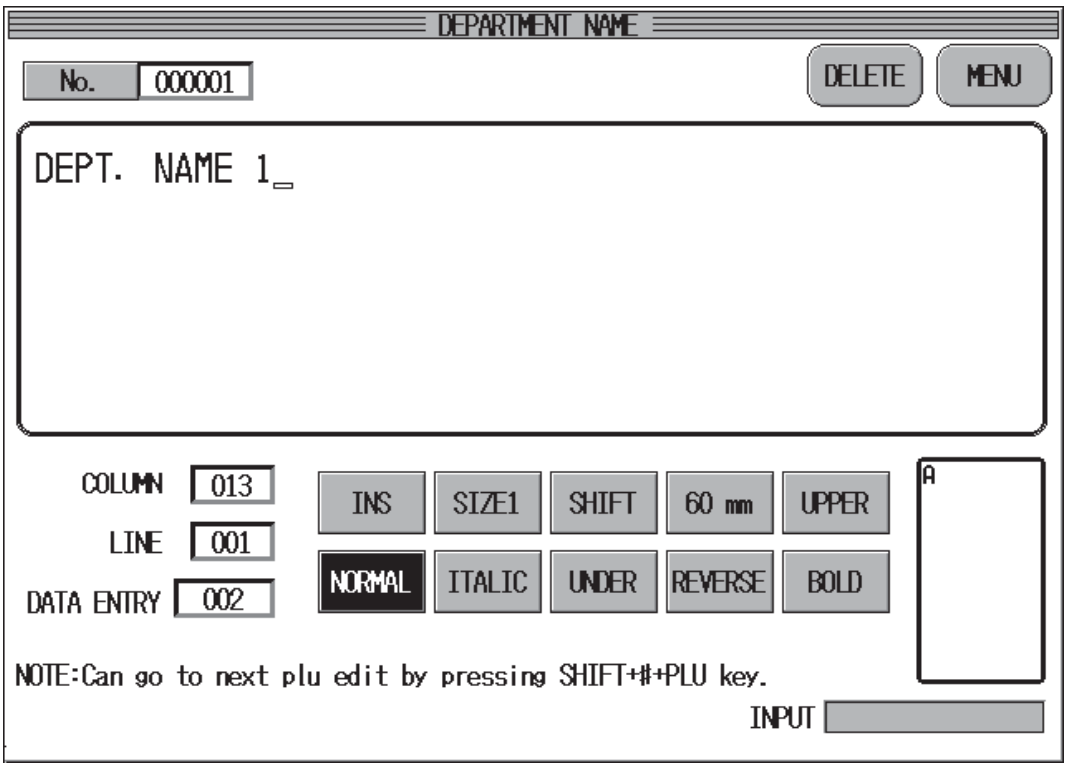
Label Feed

When either the **[FEED]** button on the screen or the **[PAPER FEED]** key on the keysheet is pressed, the label is fed.

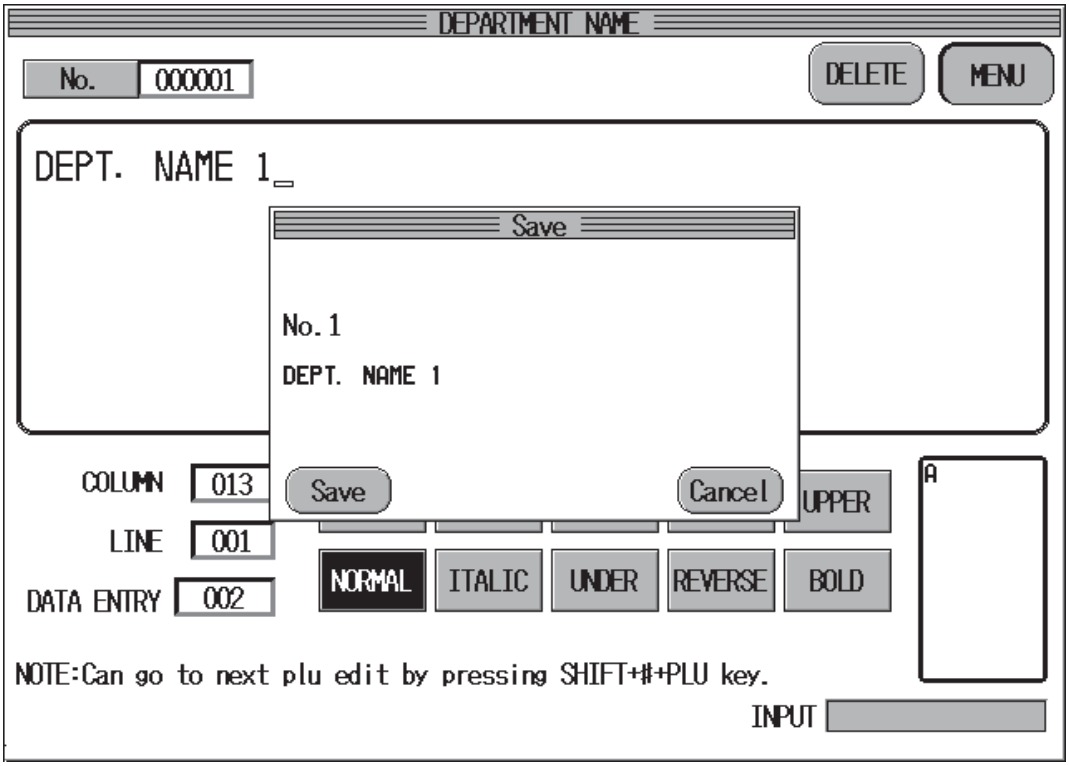
6.9 DEPARTMENT NAME

6.9.1 DEPARTMENT NAME EDIT SCREEN

This section explains how to edit the department name using edit screens. Only 1 character size (14X07) is available from a maximum of 14 characters.



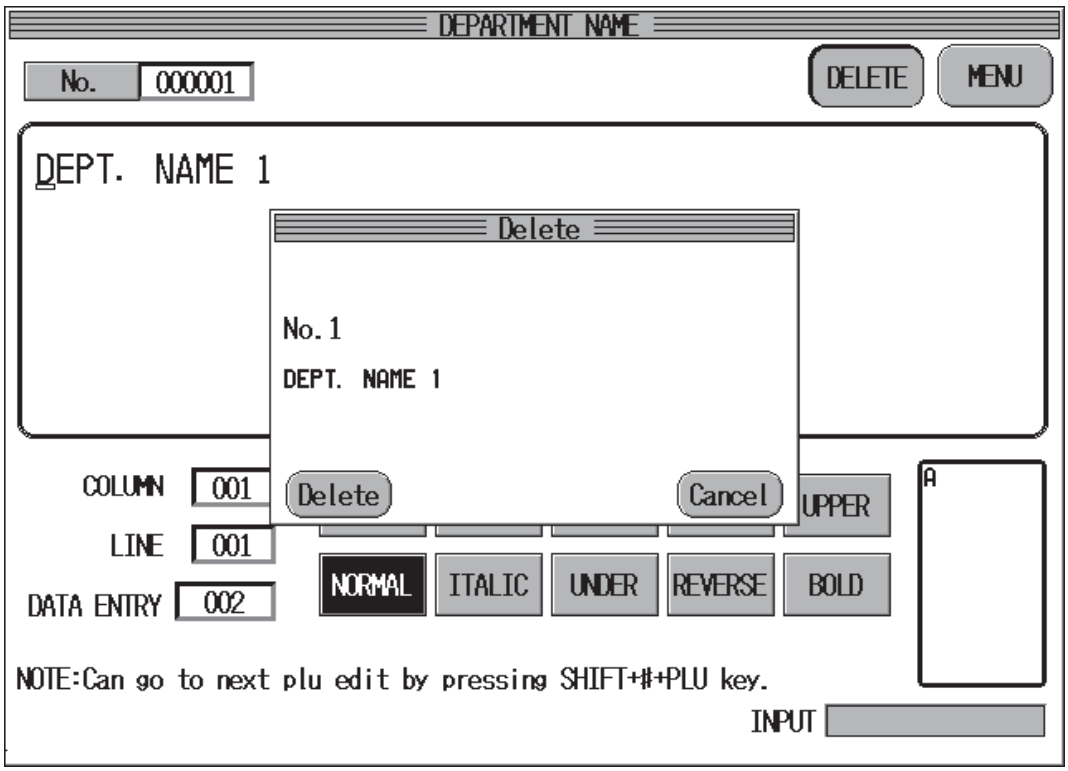
6.9.2 SAVE CONFIRMATION POP-UP SCREEN



Saving Department Name Data

To save the department name data, enter text using the key sheet. Press the **[MENU]** button on the screen, and the Save pop-up screen will appear asking for confirmation. Press the **[Save]** button on the pop-up screen.

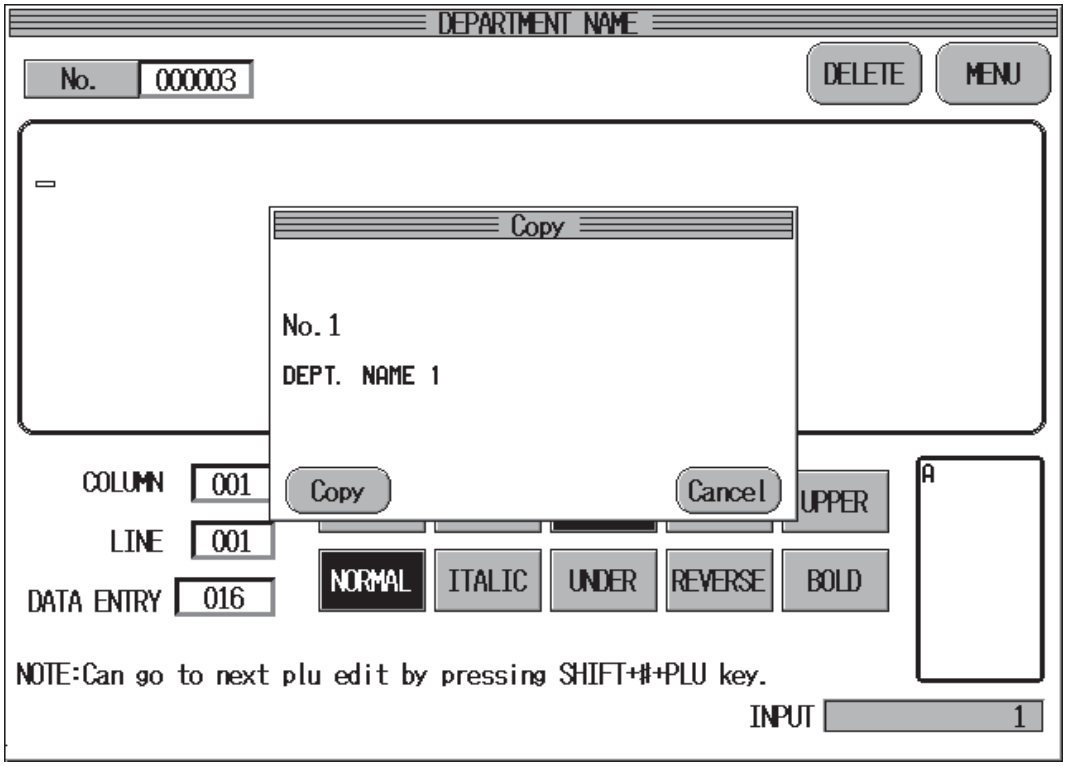
6.9.3 DELETE CONFIRMATION POP-UP SCREEN



Deleting Department Name Data
Press the **[Delete]** button on the screen, and the Delete pop-up screen will appear asking for confirmation. Press the **[Delete]** button on the pop-up screen.

In order to go to the next edit screen, first press the **[Shift]** button on the screen to accept the numeric data entered in the INPUT field, then enter the desired department number using the numeric keypad, and press the **[PLU]** key on the key sheet.

6.9.4 COPY CONFIRMATION POP-UP SCREEN



Copying Department Name Data

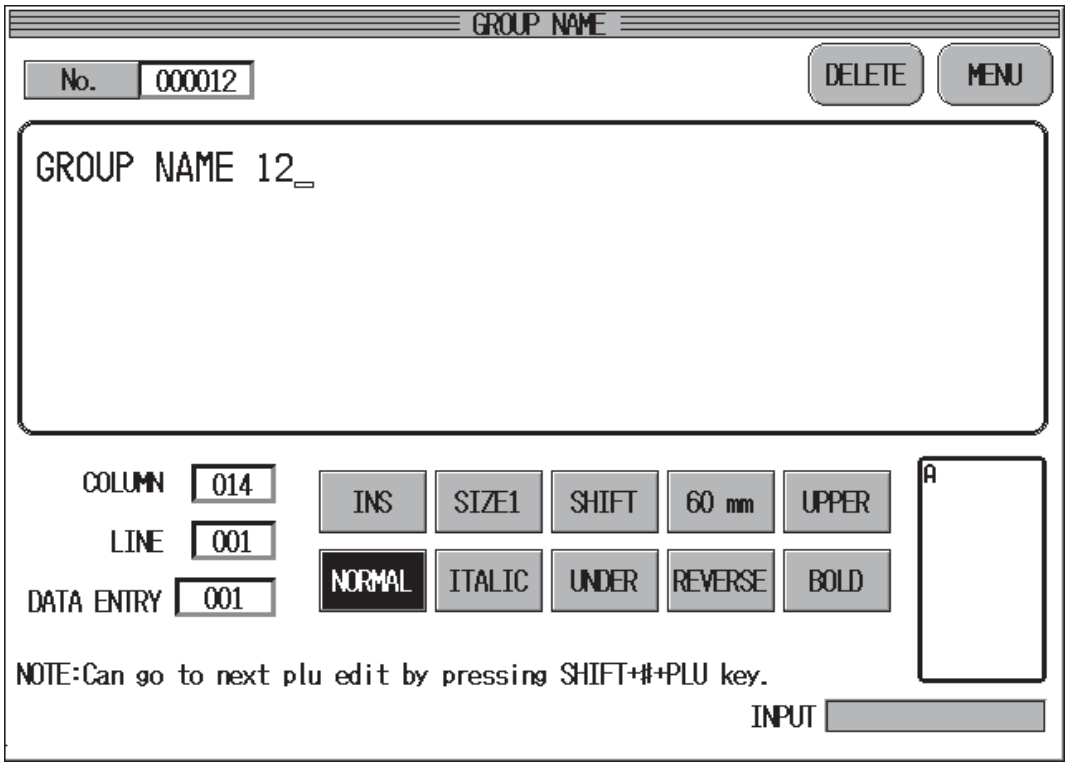
First, ensure that numeric data entry is possible in the INPUT field. If not possible, press the **[SHIFT]** button on the screen to enable numeric data entry. Call up the Department Name screen for the department to be copied to.

Enter the department number in the INPUT field and press the **[PLU]** key on the key sheet.
The Copy pop-up screen will then appear asking for confirmation. Press the **[Copy]** button on the pop-up screen. The copied department data will then be displayed in the text display area on the screen.

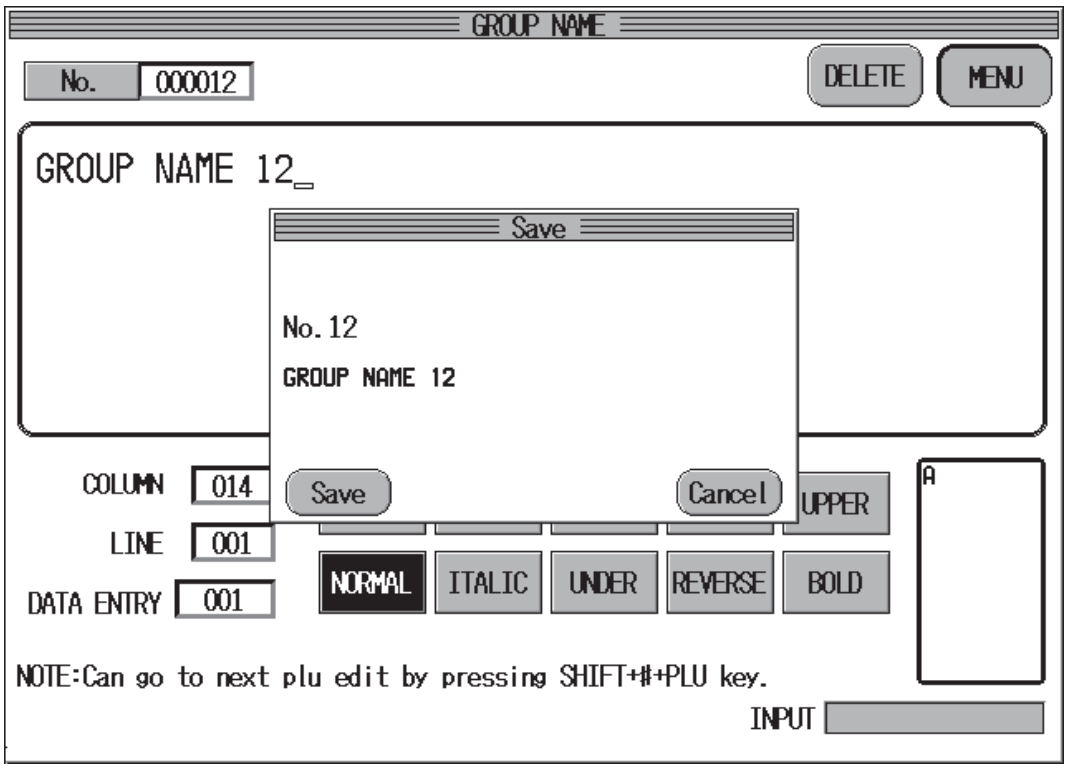
6.10 GROUP NAME

6.10.1 GROUP NAME EDIT SCREEN

This section explains how to edit the group name using edit screens. Only 1 character size (14X07) is available from a maximum of 14 characters.



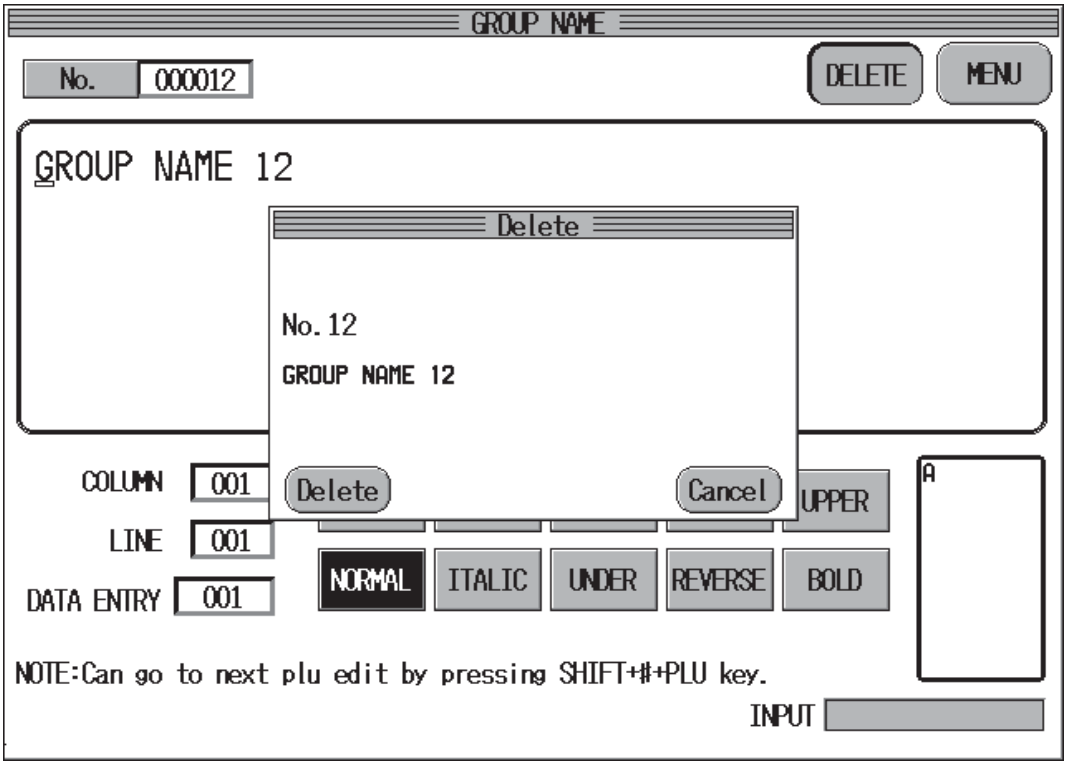
6.10.2 SAVE CONFIRMATION POP-UP SCREEN



Saving Group Name Data

To save group name data, enter text using the key sheet. Press the **[MENU]** button on the screen, and the Save pop-up screen will appear asking for confirmation. Press the **[Save]** button on the pop-up screen.

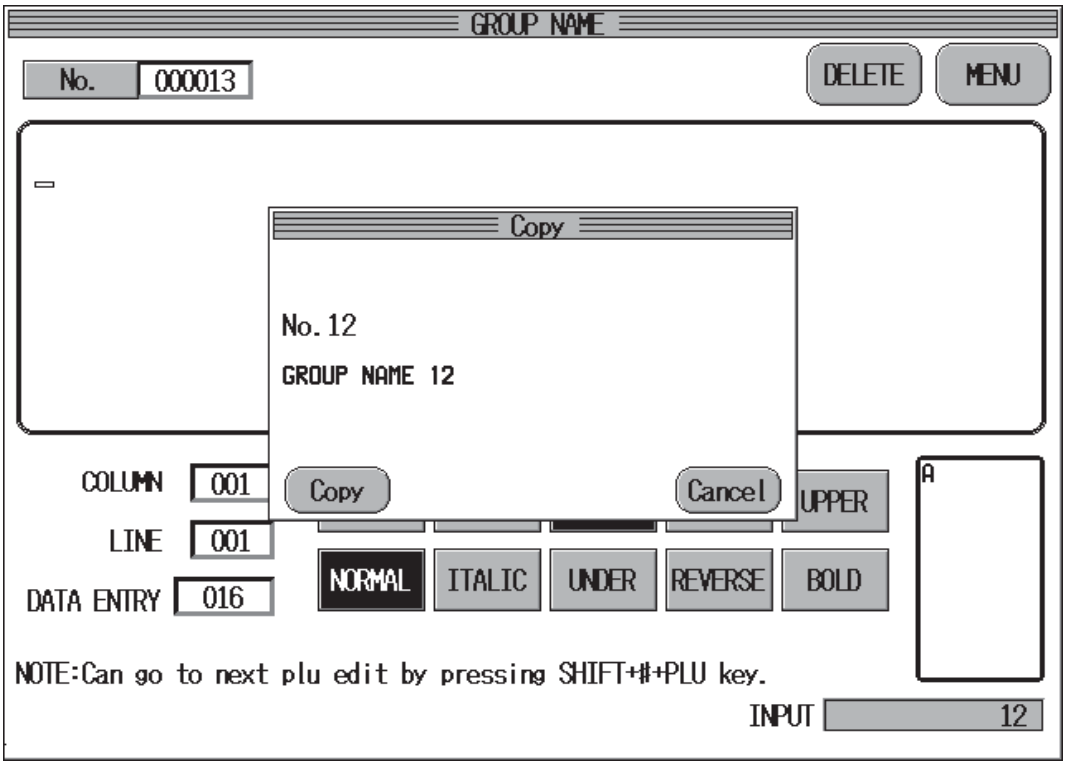
6.10.3 DELETE CONFIRMATION POP-UP SCREEN



Deleting Group Name Data
Press the **[Delete]** button on the screen, and the Delete pop-up screen will appear asking for confirmation. Press the **[Delete]** button on the pop-up screen.

In order to go to the next edit screen, first press the **[Shift]** button on the screen to accept the numeric data entered in the INPUT field, then enter the desired group number using the numeric keypad, and press the **[PLU]** key on the key sheet.

6.10.4 COPY CONFIRMATION POP-UP SCREEN



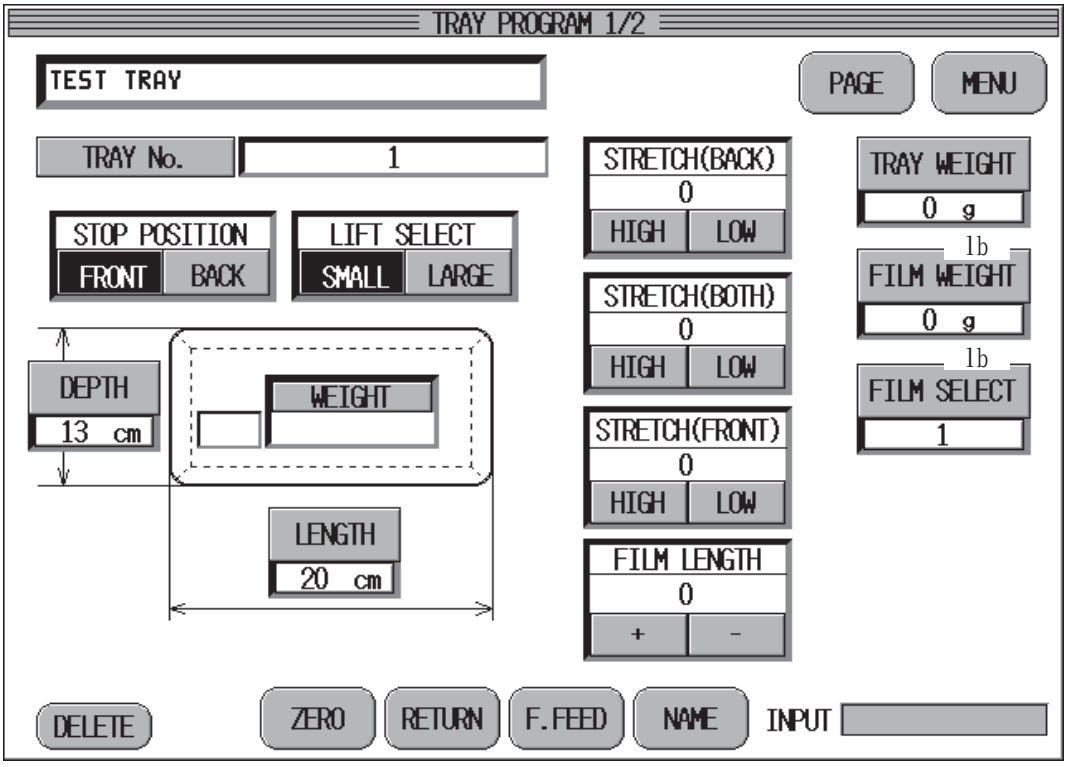
Copy Group Name Data
First, ensure that numeric data entry is possible in the INPUT field. If not possible, press the **[SHIFT]** button on the screen to enable numeric data entry. Call up the Group Name screen that the data will be copied to.

Enter the group number to be copied in the INPUT field and press the **[PLU]** key on the key sheet. The Copy pop-up screen will then appear asking for confirmation. Press the **[Copy]** button on the pop-up screen. The copied group data will then be displayed in the text display area on the screen.

6.11 TRAY FILE

6.11.1 TRAY PROGRAM 1/2 SCREEN

This section explains how to edit the tray name using edit screens. Only 1 character size (14X07) is available from a maximum of 18 characters.



Calling-up Tray Master Number (Max. 4 digits)
Enter the tray master number, then press either the **[TRAY No.]** button on the screen or the PLU key on the keysheet. When there is an existing master, the data will be displayed. If there is no existing master, the default data will be displayed.

Selection of Infeed Stop Position
Program by pressing the desired button under the **STOP POSITION** selection area. The selected item is then highlighted. The selection is made according to tray shape.

FRONT: Selected for normal trays.
BACK: Selected for trays with rims.

Selection of Lift Switch
Program by pressing the desired button under the **LIFT SELECT** selection area. The selected item is then highlighted. The selection is made according to tray shape.

SMALL: Selected for small trays.
LARGE: Selected for large trays.

Depth Dimension Data Programming
Enter the depth dimension data, and then press the **[DEPTH]** button on the screen. The programmed data will then be displayed in the **DEPTH** display area.

Length Dimension Data Programming
Enter the length dimension data, and then press the **[LENGTH]** button on the screen. The programmed data will then be displayed in the **LENGTH** display area.

Weigh Mode Switch
Press the **[WEIGH]** button on the screen to change from wrapping mode to weigh mode. The selected item is then highlighted. It is used when weighing either tray or film. In weight mode, wrapping operations will not be performed even after the weight is stabilized.

Rear Tension Adjustment (Max. 2 digits)
Adjust the tension by pressing the **[HIGH/LOW]** button under the **STRETCH(BACK)** selection area or press **STRETCH(BACK)** after the data is entered.

Left/Right Tension Adjustment (Max. 2 digits)
Adjust the tension by pressing the **[HIGH/LOW]** button under the **STRETCH(BOTH)** selection area or press **STRETCH(BOTH)** after the data is entered.

Front Tension Adjustment (Max. 2 digits)
Adjust the tension by pressing the **[HIGH/LOW]** button under the **STRETCH(FRONT)** selection area or press **STRETCH(FRONT)** after the data is entered.

Film Cut Length Adjustment (Max. 2 digits)
Adjust the film length by pressing the **[-/+]** button under the **FILM LENGTH** selection area or press **FILM LENGTH** after the data is entered.

Tray Weight Programming (Max. 2 digits)
Enter the weight data, then press the **[TRAY WEIGHT]** button on the screen. It is added to the tare data when the tray master is called-up in normal mode.

Film Weight Programming (Max. 2 digits)
Enter the weight data, then press the **[FILM WEIGHT]** button on the screen. It is added to the tare data when the tray master is called-up in normal mode (with wrapping function).

Film Roll Selection (1: Right, 3: Left)
Enter the data, then press the **[FILM SELECT]** button on the screen.

Tray Master Delete
The delete confirmation pop-up screen will be displayed when the **[DELETE]** button on the screen is pressed.

Zero Adjustment
Zero adjustment is performed by pressing either the **[ZERO]** button on the screen or the ZERO key on the keysheet in weigh mode (WEIGH button is highlighted). ZERO will be displayed.

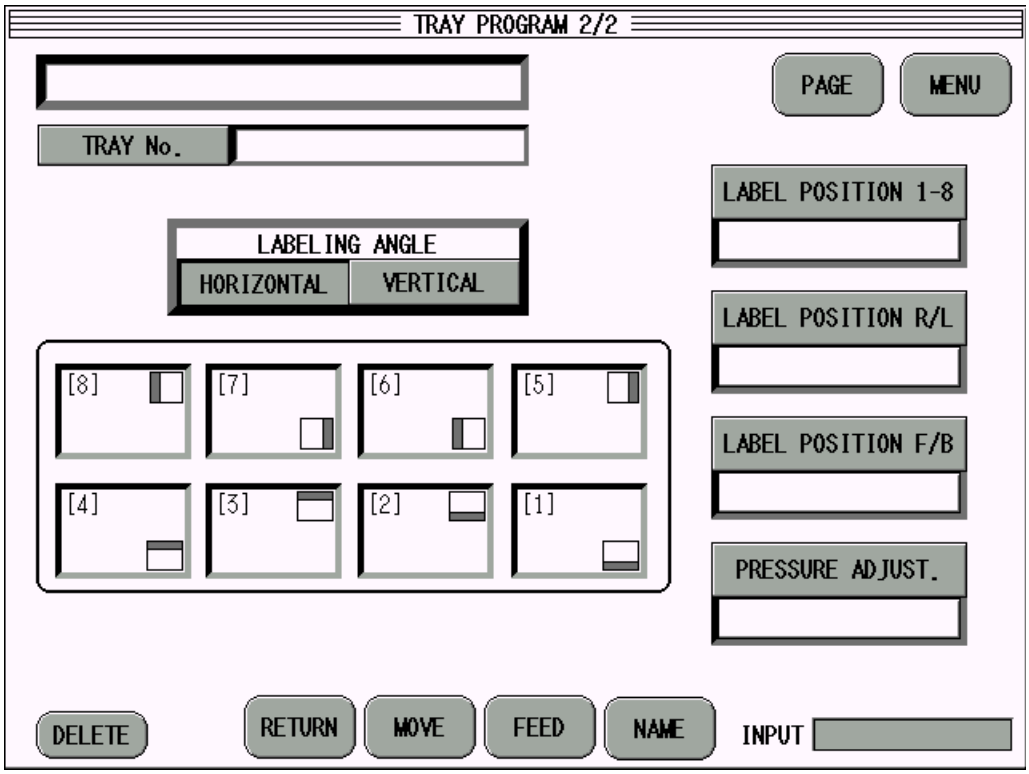
Wrapper Return Operation
Wrapper return operation is performed by pressing the **[RETURN]** button on the screen.

Film Feed Operation
Film feed operation is performed by pressing the **[F.FEED]** button on the screen.

Tray Name Programming/Edit Screen Switch
Tray name edit screen is displayed by pressing the **[NAME]** button on the screen.

Tray Master Programming Screen Switch
Tray name program screen 2/2 is displayed by pressing the **[PAGE]** button on the screen.

6.11.2 TRAY PROGRAM 2/2 SCREEN



Tray No.
Displays a tray number for the wrapping test.

Labeling Angle [Horizontal/Vertical]
Selects a label angle either horizontal or vertical to the tray.

Label Position 1-8
Select a required label position and angle from **[1]** to **[4]** when **[HORIZONTAL]** is selected, or from **[5]** to **[8]** when **[VERTICAL]** is selected.

Applicator Left/Right Position Programming
Enter the label position data, then press the **[LABEL POSITION R/L]** button on the screen.
The programmed label position data will then be displayed in the **LABEL POSITION R/L** display area.

Applicator Front/Rear Position Programming
Enter the label position data, then press the **[LABEL POSITION F/B]** button on the screen.
The programmed label position data will then be displayed in the **LABEL POSITION F/B** display area.

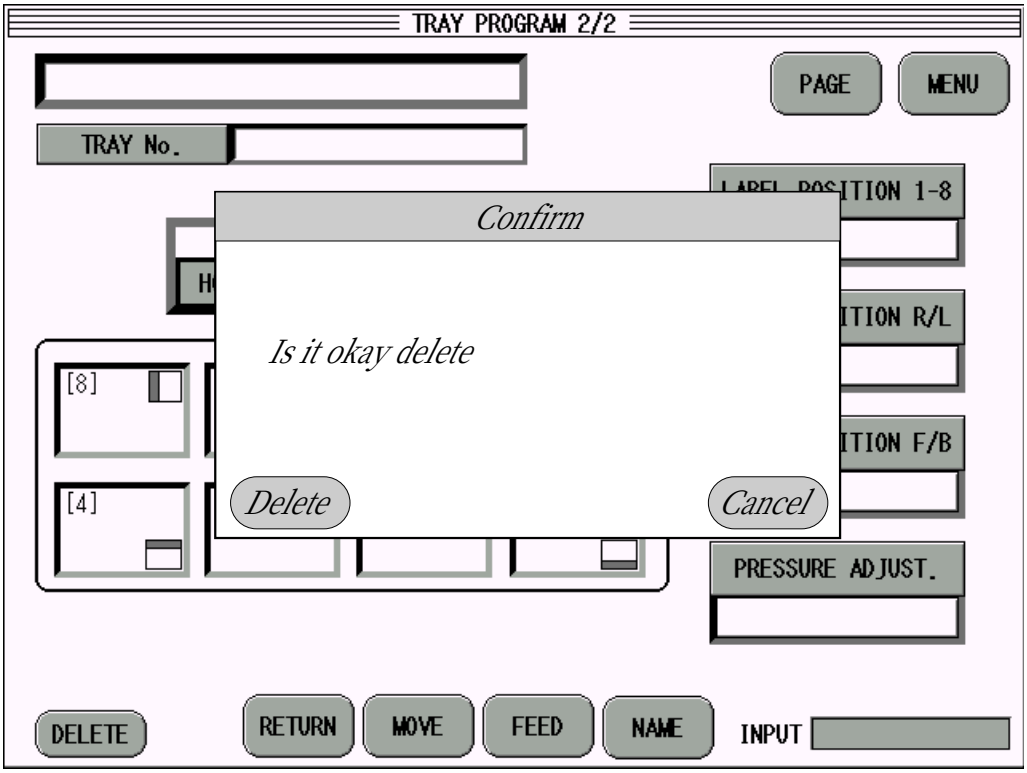
Label Pressure Adjustment Data Programming
Enter the pressure data, then press the **[PRESSURE ADJUST.]** button on the screen. The programmed pressure adjustment data will then be displayed in the **PRESSURE ADJUST.** display area.

Applicator Move Operation Data Programming
After programming the left and right label position, press the **[MOVE]** button on the screen to start moving the applicator.

Labeling Test Operation
Perform labeling test through weight stabilized (pricing operation), a non-printing label is issued.

Label Feeding Operation
Label feeding operation is performed by pressing either the **[FEED]** button on the screen or by pressing the **[PAPER FEED]** key on the keysheet.

6.11.3 TRAY PROGRAM 1/2 DELETE CONFIRMATION POP-UP SCREEN



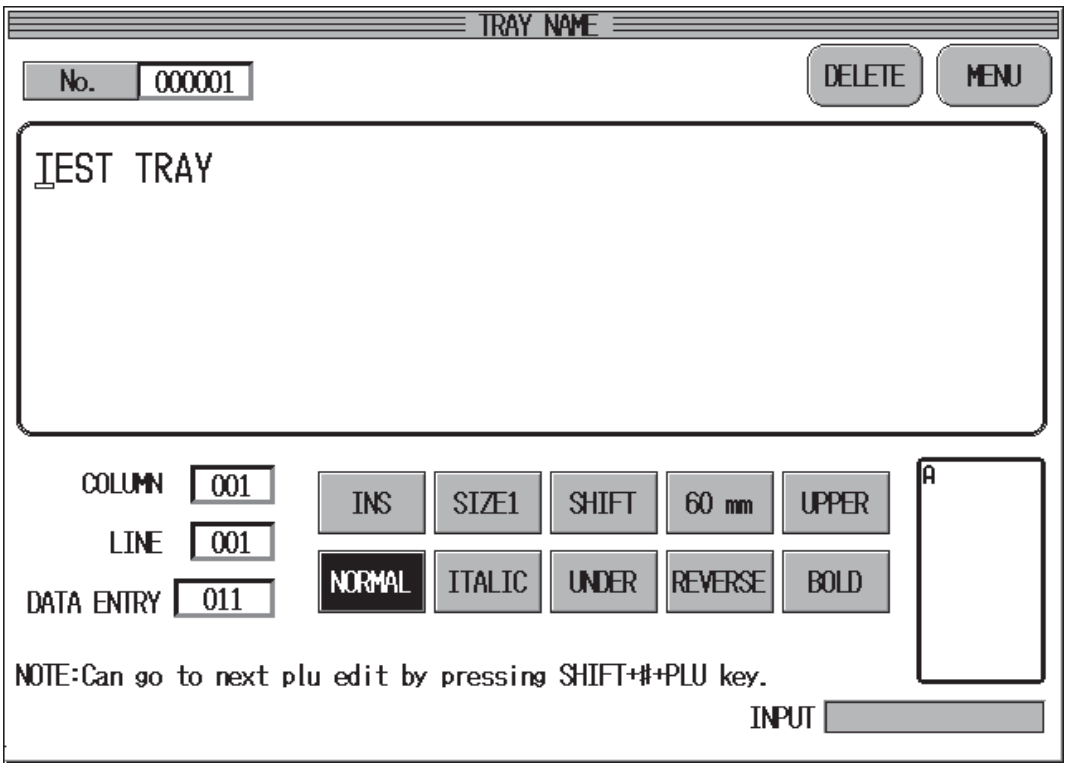
Deleting Tray Master Data

Ensure that numeric data entry is possible in the **INPUT** field. If not possible, press the **[SHIFT]** button on the screen to enable numeric data entry. Enter the tray master number in the **INPUT** field using the numeric keypad and press the **[PLU]** key on the key sheet.

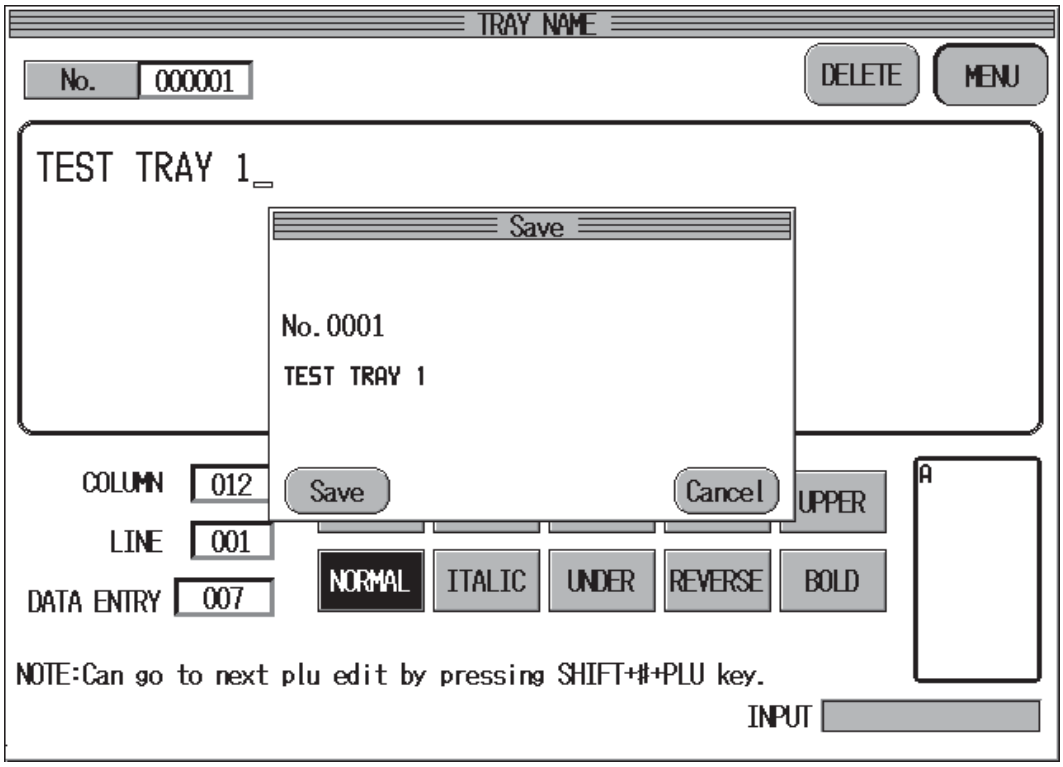
Press the **[DELETE]** button on the screen, and the Delete pop-up screen will appear asking for confirmation. Press the **[Delete]** button on the pop-up screen.

In order to go to the next tray program screen, first press the **[Shift]** button on the screen to accept the numeric data to entered in the **INPUT** field, then enter the desired tray number using the numeric keypad, and press the **[PLU]** key on the key sheet.

6.11.4 TRAY NAME EDIT SCREEN



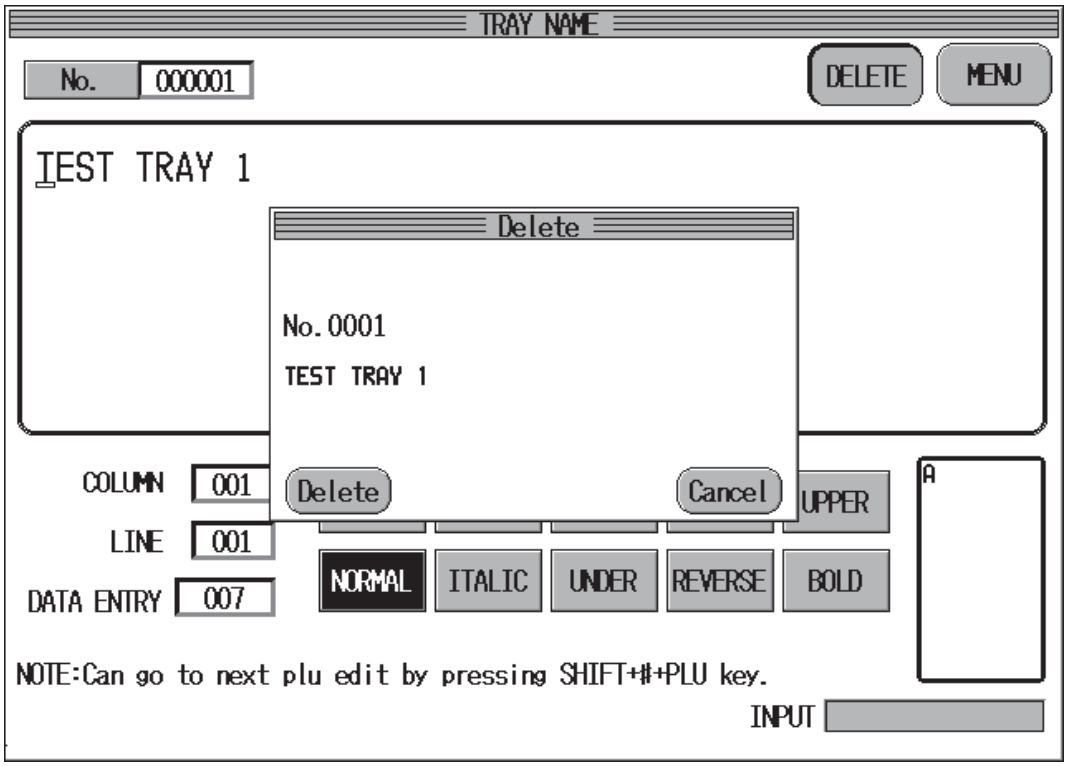
6.11.5 RAY NAME SAVE CONFIRMATION POP-UP SCREEN



Saving Tray Name Data
Enter the tray number in the **INPUT** field using the numeric keypad and press the **[PLU]** key on the key sheet. Press the **[NAME]** button on the screen, and the Tray Name screen will then appear.

To save the tray name data, enter text using the key sheet. Press the **[MENU]** button on the screen, and the Save pop-up screen will appear asking for confirmation. Press the **[Save]** button on the pop-up screen.

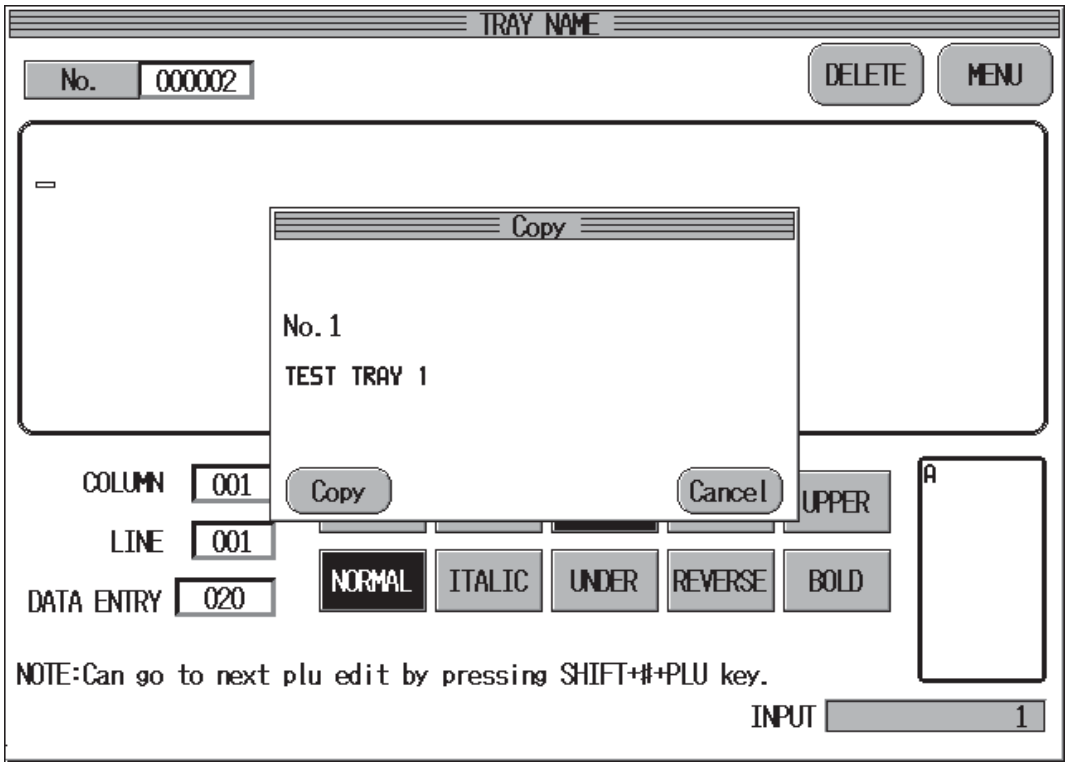
6.11.6 TRAY NAME DELETE CONFIRMATION POP-UP SCREEN



Deleting Tray Name Data
Press the **[DELETE]** button on the screen, and the Delete pop-up screen will appear asking for confirmation. Press the **[Delete]** button on the pop-up screen.

In order to go to the next tray name, first press the **[Shift]** button on the screen to accept the numeric data entered in the **INPUT** field, then enter the desired tray name using the numeric keypad, and press the **[PLU]** key on the key sheet.

6.11.7 TRAY NAME COPY CONFIRMATION POP-UP SCREEN



Copying Tray Data

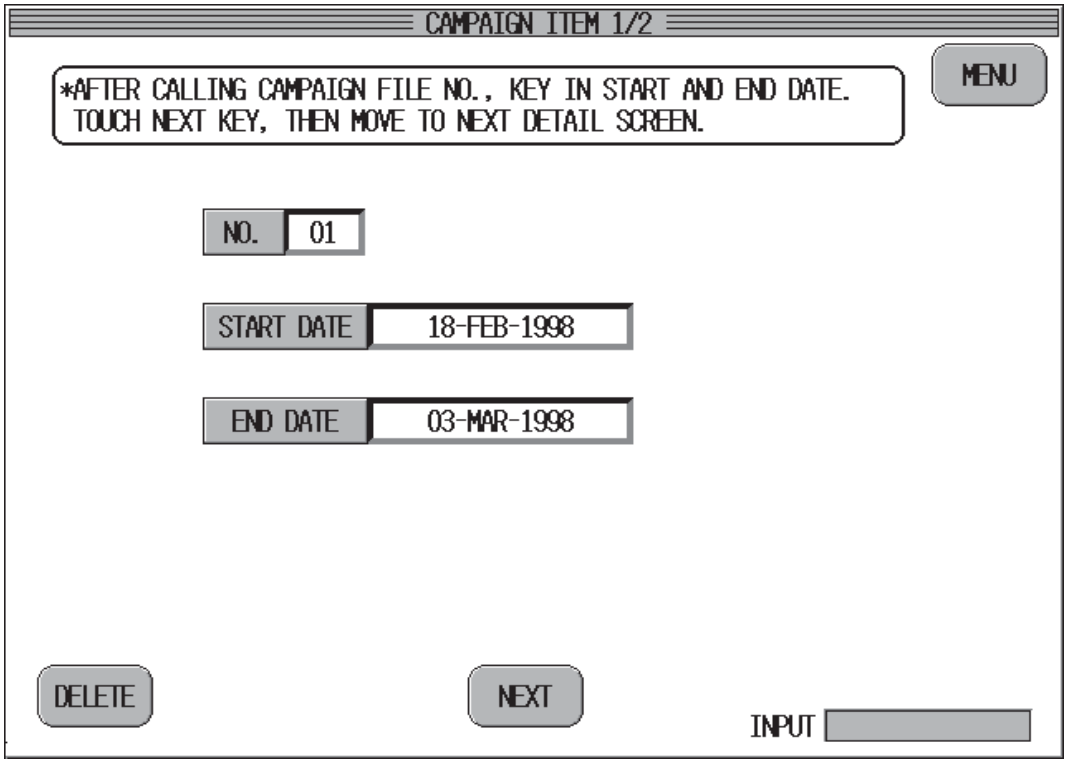
First, ensure that numeric data entry is possible in the **INPUT** field. If not possible, press the **[SHIFT]** button on the screen to enable numeric data entry. Call up the Tray Name screen for you want to copy to.

Enter the tray number to be copied in the **INPUT** field of the screen and press the **[PLU]** key on the key sheet. The Copy pop-up screen will then appear asking for confirmation. Press the **[Copy]** button on the pop-up screen. The copied data will then be displayed in the text display area on the screen.

6.12 CAMPAIGN ITEM

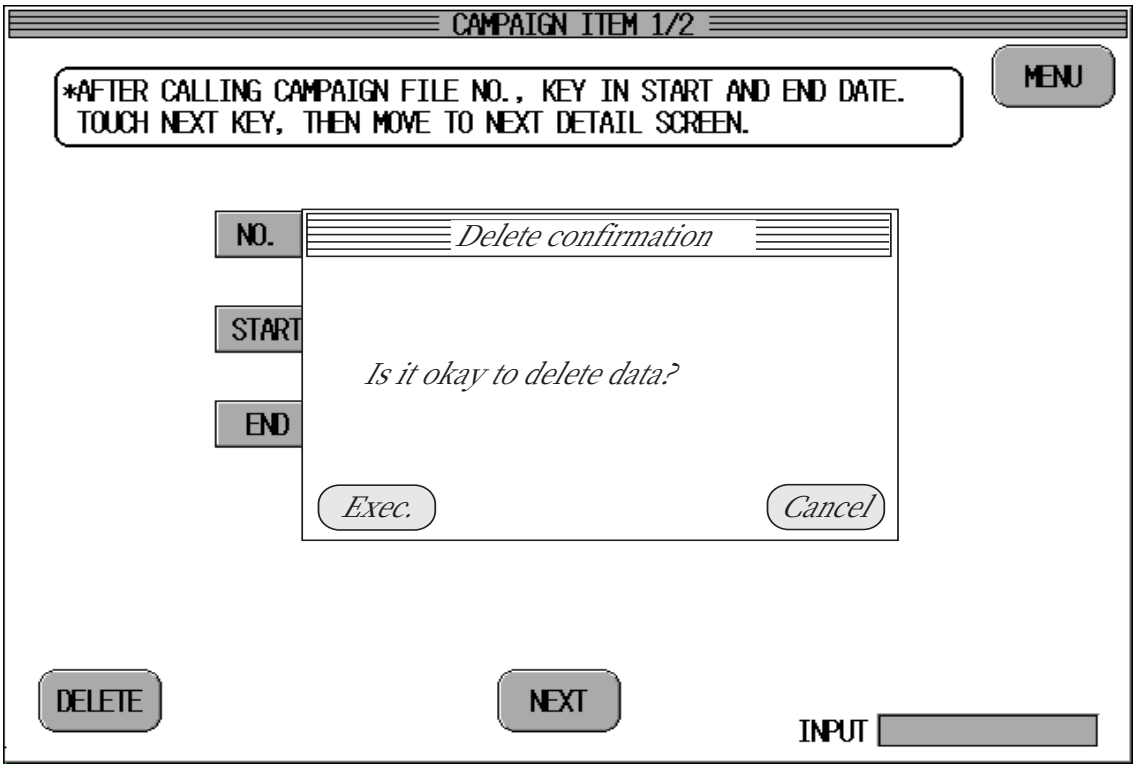
6.12.1 CAMPAIGN ITEM 1/2 EDIT SCREEN

A maximum number of 20 files can be programmed into the campaign master. A maximum number of 100 items can be programmed into each file.



Programming Campaign Period
To program the campaign period, call-up the Campaign Item screen, then enter the start and end date. To show detailed item data, press the **[NEXT]** button on the screen.

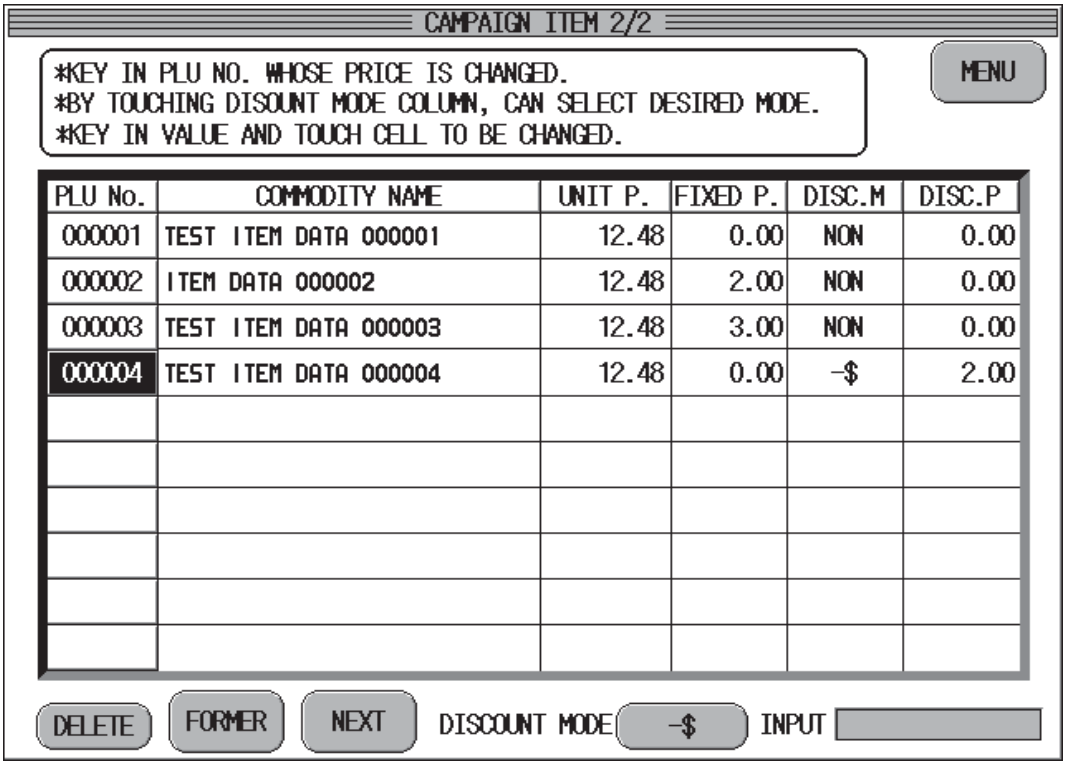
6.12.2 CAMPAIGN ITEM 1/2 DELETE CONFIRMATION POP-UP SCREEN



Deleting Campaign Period Data

Call-up the item data to be deleted. The item called-up will be highlighted. To delete the highlighted item data, press the **[DELETE]** button on the screen. A Delete pop-up screen will then appear, asking for confirmation. To delete, press the **[Exec.]** button.

6.12.3 CAMPAIGN ITEM 2/2 EDIT SCREEN

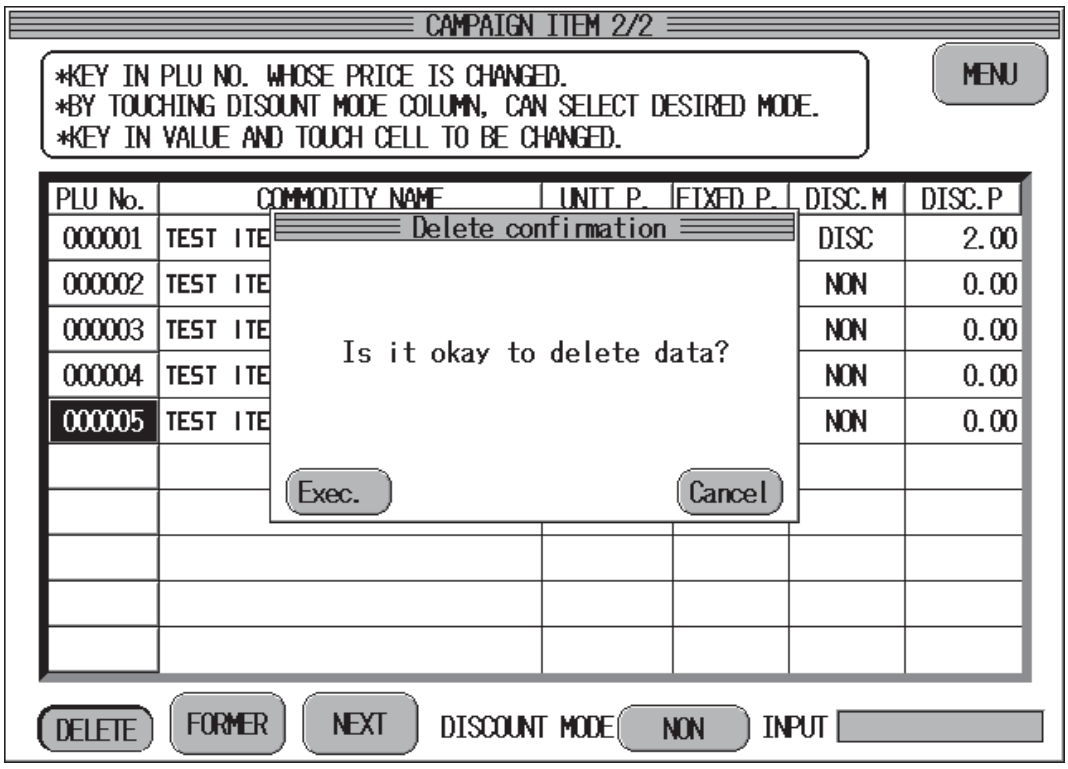

CAMPAIGN ITEM 2/2
*KEY IN PLU NO. WHOSE PRICE IS CHANGED.
*BY TOUCHING DISCOUNT MODE COLUMN, CAN SELECT DESIRED MODE.
*KEY IN VALUE AND TOUCH CELL TO BE CHANGED.
MENU
PLU No. | COMMODITY NAME | UNIT P. | FIXED P. | DISC.M | DISC.P
000001 | TEST ITEM DATA 000001 | 12.48 | 0.00 | NON | 0.00
000002 | ITEM DATA 000002 | 12.48 | 2.00 | NON | 0.00
000003 | TEST ITEM DATA 000003 | 12.48 | 3.00 | NON | 0.00
000004 | TEST ITEM DATA 000004 | 12.48 | 0.00 | -$ | 2.00
DELETE
FORMER
NEXT
DISCOUNT MODE
-$
INPUT

Programming Campaign Items

To call-up the Campaign Item 2/2 screen, press the **[NEXT]** button on the screen. Then call-up the campaign item data by pressing the **[PLU]** key on the key sheet after entering the PLU number. For the highlighted item, program the discount mode by pressing the **[Discount Mode]** button until desired markdown mode **([NON**], **[DISC**], **[–$**], **[–%**], **or [UP])** is obtained.

Press the **DISC.P** field after entering the value.

6.12.4 CAMPAIGN ITEM 2/2 DELETE CONFIRMATION POP-UP SCREEN

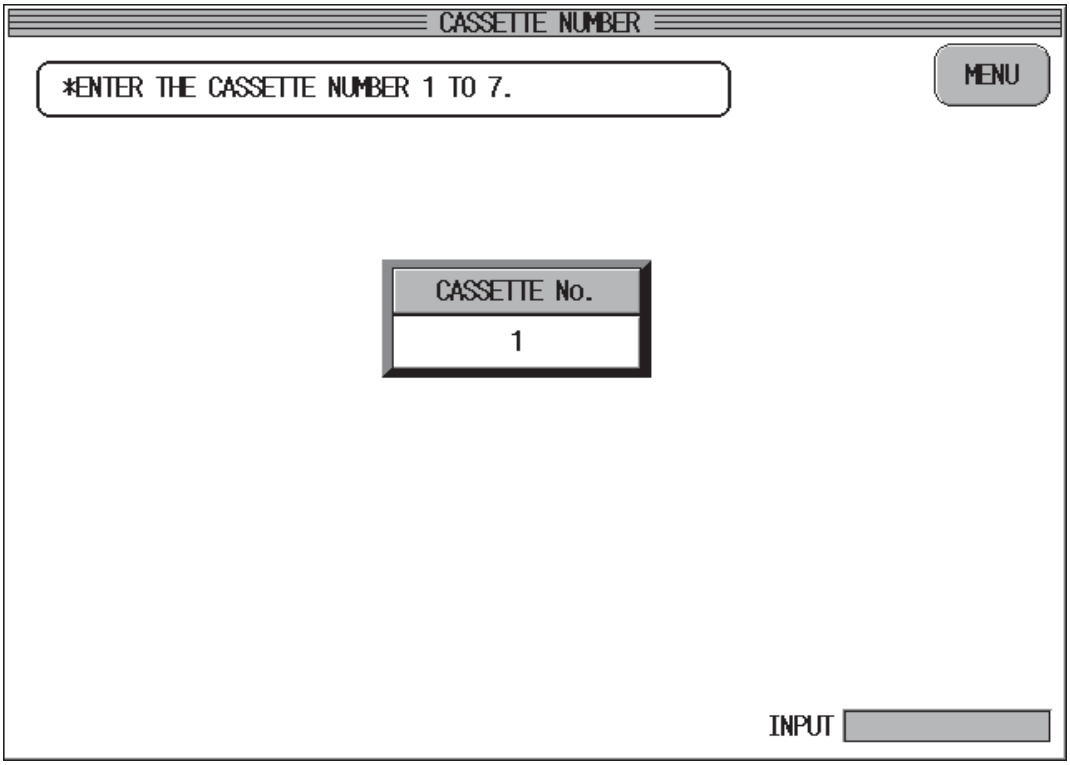


Deleting Campaign Item Data

Call-up the item data to be deleted. The item called-up will be highlighted. To delete the highlighted item data, press the **[DELETE]** button on the screen. A Delete pop-up screen will then appear, asking for confirmation. To delete, press the **[Exec.]** button on the pop-up screen.

6.13 CASSETTE NUMBER

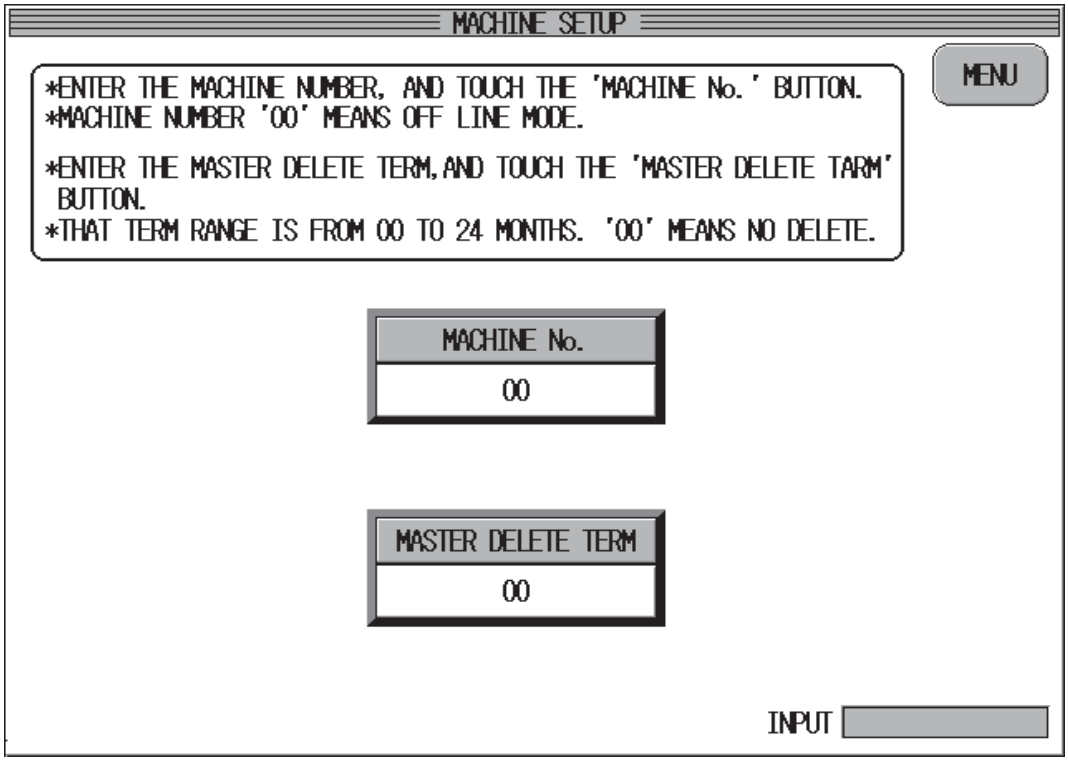
CASSETTE NUMBER EDIT SCREEN



Programming the Cassette Number
Press the **[CASSETTE No.]** button on the screen to program after entering the cassette number to be used when printing (There is no actual cassette media installed. The cassette number indicates a group with printing flag information, including label format number, sensor information, store name/address to be programmed in program mode.).

6.14 MACHINE SETUP

MACHINE SETUP SCREEN


MACHINE SETUP
MENU
*ENTER THE MACHINE NUMBER, AND TOUCH THE 'MACHINE No.' BUTTON.
*MACHINE NUMBER '00' MEANS OFF LINE MODE.
*ENTER THE MASTER DELETE TERM,AND TOUCH THE 'MASTER DELETE TARM' BUTTON.
*THAT TERM RANGE IS FROM 00 TO 24 MONTHS. '00' MEANS NO DELETE.
MACHINE No.
00
MASTER DELETE TERM
00
INPUT

Machine Number Button

1. Machine number is programmed for online use.
2. After making numeric data entry, programming is completed by pressing the **[MACHINE NO.]** button on the screen.

Note: Program numbers range for 02 to 31. "00" is used for offline. "01" is assigned for the master machine.

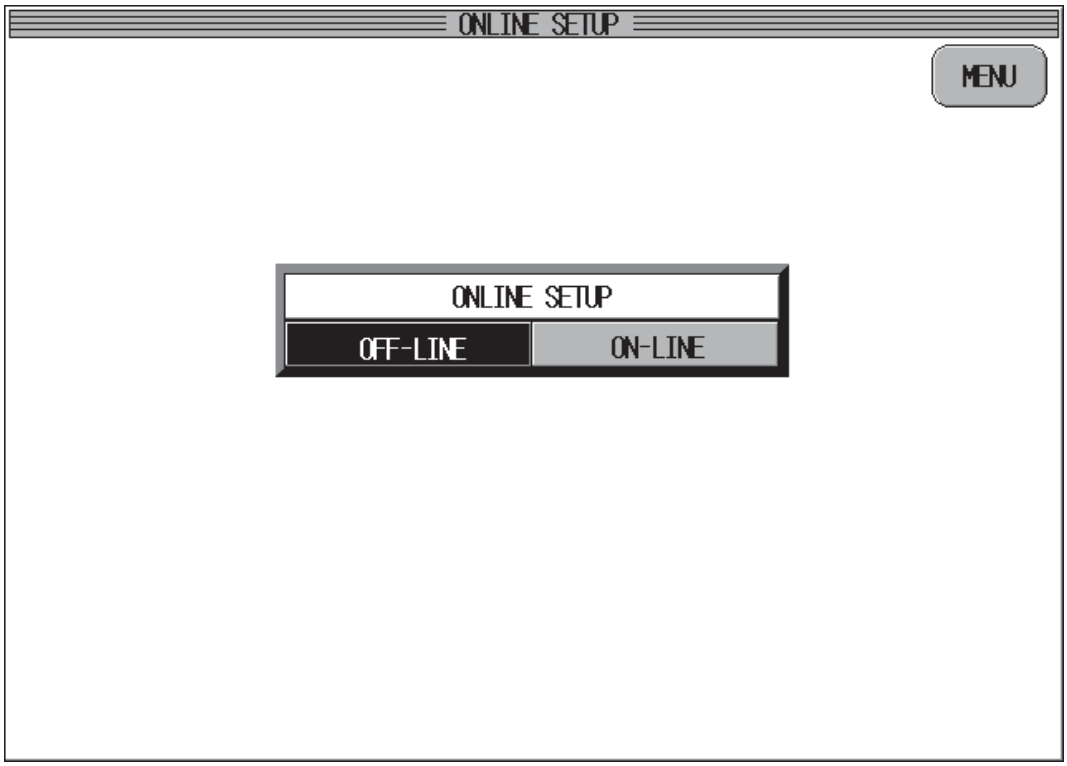
Item Master Automatic Delete Term Program Button

1. The satellite machine will store an item master by calling up an item from the master machine when online. This programming is used to define a period to automatically delete the item master in a satellite machine after a specified term if no call-up is performed from the master machine. For example, when one month is programmed, the item master will be deleted unless call-up takes place up to the first day of the second month.
2. After numeric entry, press this button.

Note: Programmable terms range between 01 to 24 months. "00" indicates no programming.

6.15 ONLINE SETUP

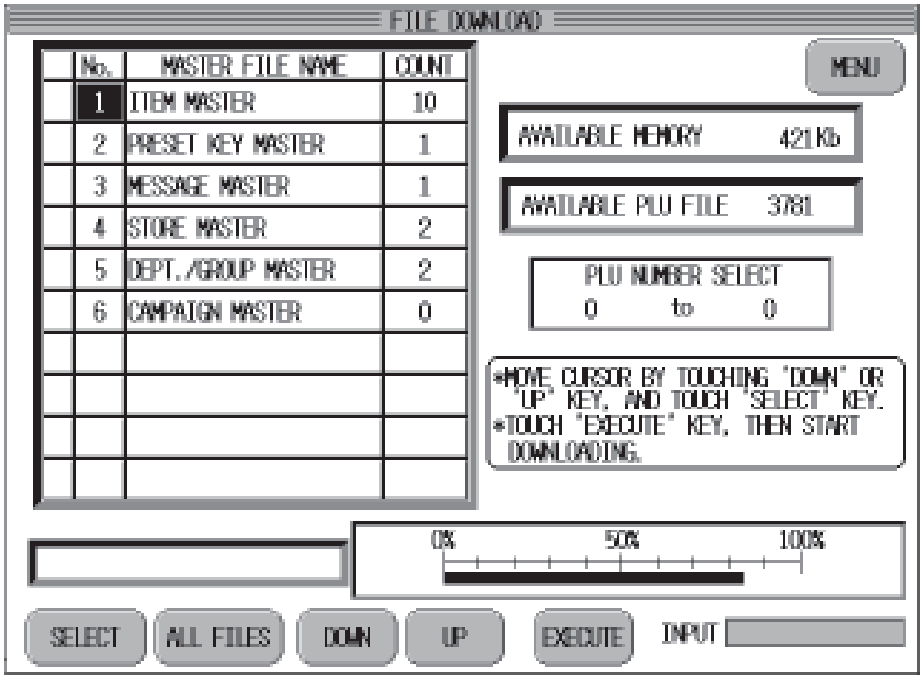
ONLINE SETUP SCREEN



This is used to switch between online and offline when item master specifications are applied.

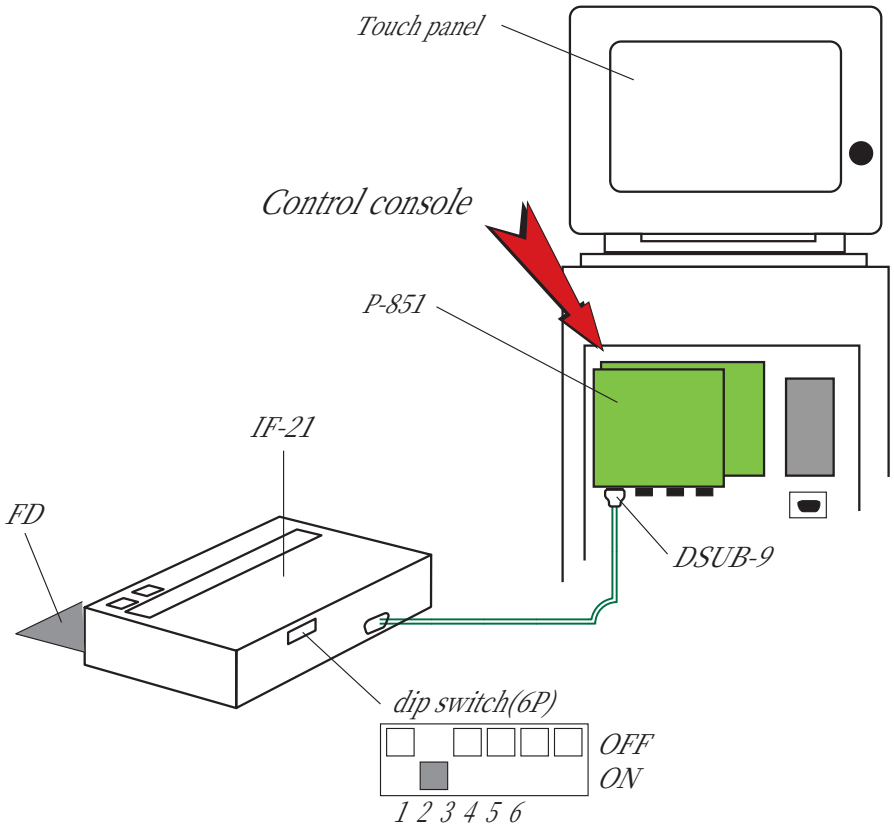
Offline/Online Button
Default is set to offline. Press the button to complete the programming. The selected button will then be highlighted.

6.16 FILE DOWNLOAD



Process to connect wiyh IF-21 when Data Save/Load, and Dip switch setting.

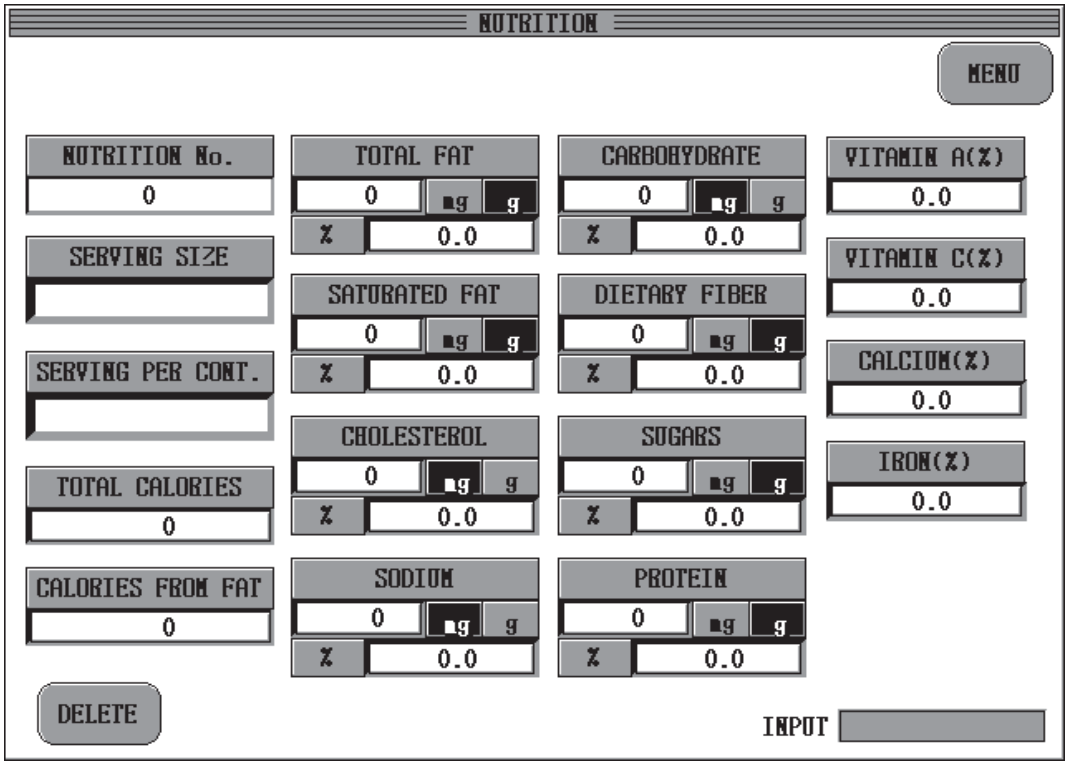
1. Connect DSUB-9 from IF-21 to “Option” connector at the bacward of Control console (P-851).
2. Insert Power plug for IF-21.
3. Tura ON Dip switch No.2 of IF-21.
4. Insert FD into IF-21.
5. Save or load the data though Data Save/Load menu.



6.17 NUTRITION

This function is used to program nutrition data which will be printed on the label by linking the associated PLU. To display the NUTRITION screen, press the NUTRITION button on the PROGRAM MENU screen.

Enter a numeric value (1 to 9999)and oress the NUTRITION No.button on the screen to call-up the master fule and program the required data in each fielid.



NUTRITION No
Call-up the nutrition master file by entering a numeric value (1 to 9999) and pressing the button.

SERVING SIZE
Used to enter characters such as 1 cup/slice by using the operation keysheet and pressing the cell.

SERVING PER CONT
Used to enter alphanumeric data (4 digit) by pressing the button.

TOTAL CALORIES
Used to enter alphanumeric data (4 digit) by pressing the button.

CALORIES FROM FAT
Used to enter alphanumeric data (4 digit) by pressing the button.

TOTAL FAT/SATURATED FAT/CHOLESTEROL/SODIUM/CARBOHYDRATE.
DIETARY FIBER/SUGARS/PROTEIN.
Used to enter the ingredient weight data by entering a numeric value and pressing the cell to set.
Select a unit of weight measure by pressing the button. The selected measurement will then be highlighted.
Enter the percentage of the ingredient to be obtained for the daily total requirement of an adult by entering a numeric value and pressing the cell to set.

VITAMIN A (%)/VITAMIN C (%)/CALCIOM (%)/IRON (%)
Used to enter percent (max. 3 digits) in the desired field and press the corresponding button.

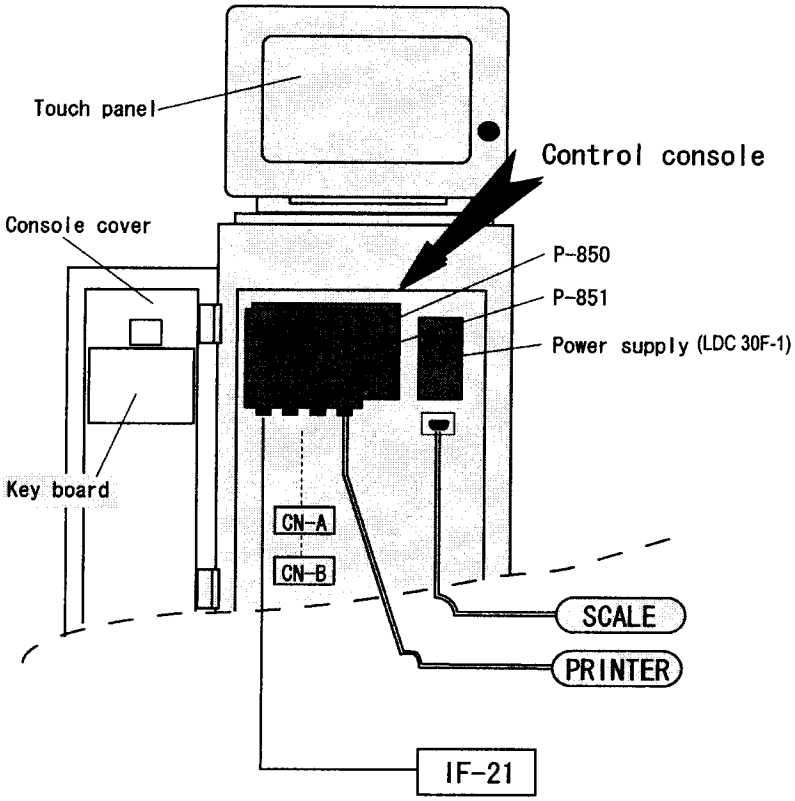
Chapter 7

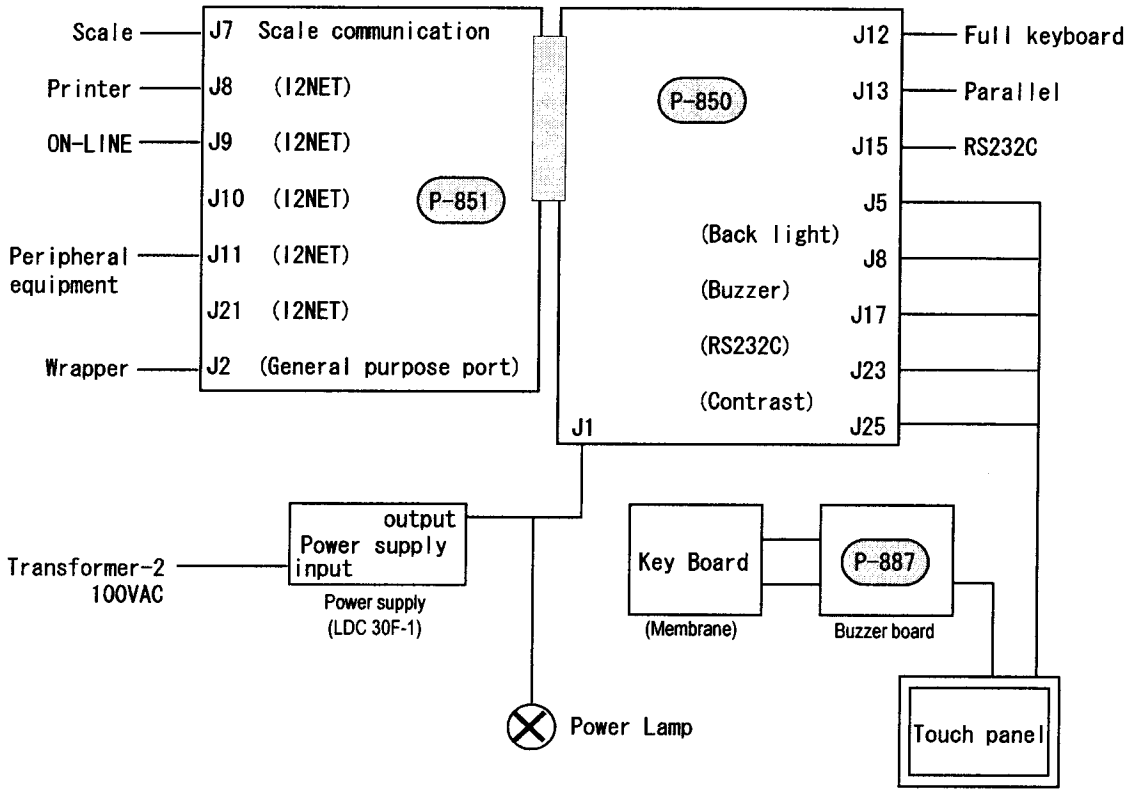
MAIN UNITS & ERROR MESSAGES

MENU FOR MAIN UNITS AND ERROR CODES

Section	Page	Error Number(s)
7.1 Control Console	7-3	201 to 208, 601 to 607, 1101, 1102, 1601
7.2 Printer Applicator	7-5	701 to 724
7.3 Rear Wrapping Motor	7-8	1104
7.4 Left/Right Wrapping Motor	7-10	1105
7.5 Discharge Pusher	7-12	1106, 1117
7.6 Film Feeder Movement	7-14	1107
7.7 Film Feeder Drive	7-16	1108
7.8 Infeed Conveyor	7-18	1109, 1134, 1147, 1603
7.9 Film Press Roller	7-20	1110, 1111, 1125
7.10 Lift Size Change	7-22	1112, 1135
7.11 Printer Movement (R/L)	7-24	1113
7.12 Film Feed Roller	7-26	1114
7.13 Film Cutter	7-28	1115
7.14 Lift Servo Motor	7-30	1116
7.15 Film Feeder	7-32	1119, 1127
7.16 Circuit Boards: P-857, P-858	7-34	1122, 1153
7.17 Emergency Stop Button	7-40	1123, 1124
7.18 Foreign Object / Item Sensor	7-42	1128, 1133
7.19 Cutter and Separator Solenoids	7-44	1129
7.20 Film Tension Control Dial	7-46	1132
7.21 Lift	7-48	1103, 1116, 1122, 1136, 1137
7.22 Safety Switches	7-50	1150, 1151
7.23 Lift Drive		
7.24 Lift Head		
7.25 Fuse Max. Capacity and Fuse Errors		
7.26 Discharge Conveyor		1170
7.27 Non-Message Error Conditions		
7.28 Error Messages by Number		

7.1 CONTROL CONSOLE





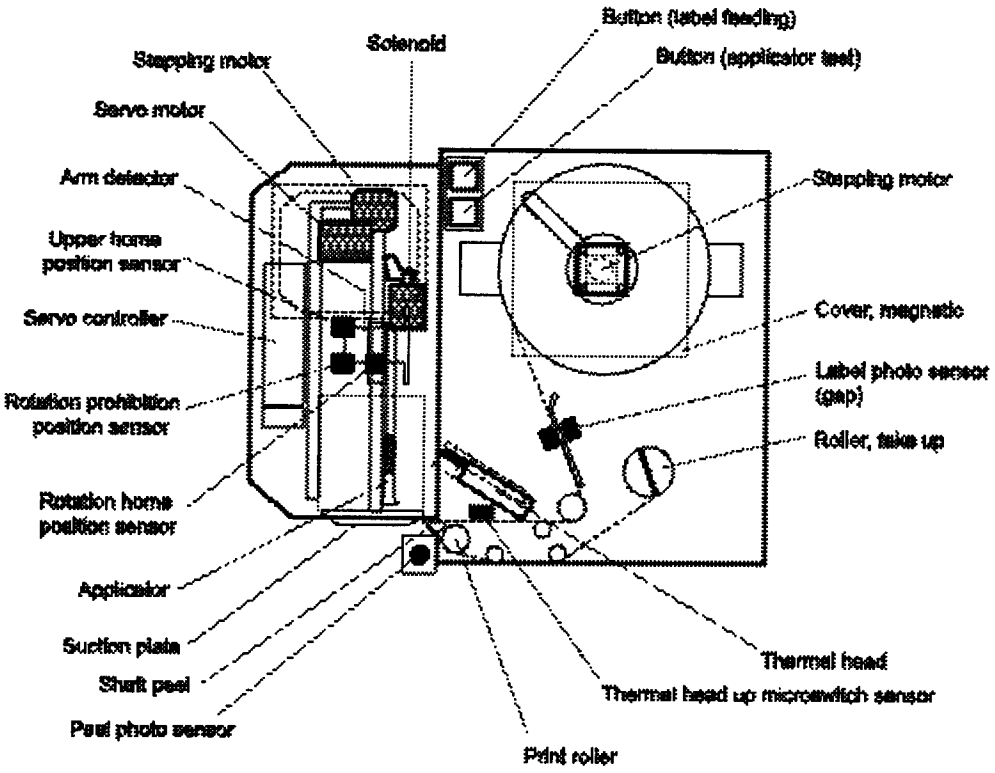
CONTROL CONSOLE ERROR MESSAGE

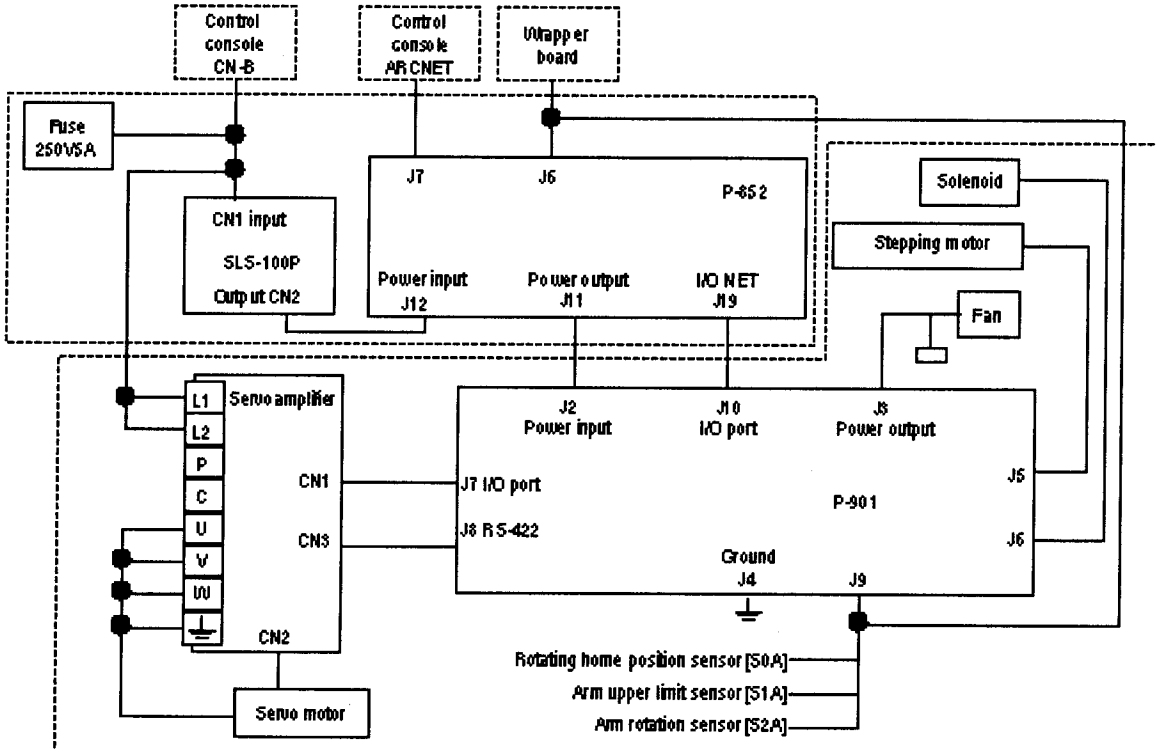
Error No.	Error Message	Cause / Solution
No. 0201-0001	Memory not initial set.	Memory not initial. Initalize memory. P-850
No. 0201-0002	Memory not initial set.	Memory not initial. Initalize memory. P-851
No. 0202-0048	Item master is not registered.	Confirm PLU number and call up item. Press the **[CLR]** key to cancel the error condition.
No. 0203-0000	Store master is not registered.	Register store master. Press the **[CLR]** key to cancel the error condition.
No. 0205-0000	Price value is zero.	Sales price is zero. Enter value again and weigh. Press the **[CLR]** key to cancel the error condition.
No. 0207-0000	Master memory is filled.	Cannot add same of item. Delete unnecessary master. Press the **[CLR]** key to cancel the error condition.
No. 0208-0000	Amount memory is filled.	Cannot sum total. After sending necessary totals, perform total clear. Cannot sum total unit total clear is performed. Press the **[CLR]** key to cancel the error condition.

Error No.	Error Message	Cause / Solution
No. 0601-0000	Excess $ on scale item.	Markdown exceeds sales price.
No. 0602-0000	Weight outside field setting.	Weight exceeds upper/lower limit.
No. 0603-0000	Production for target data is complete.	Production exceeds target data.
No. 0604-0000	Machine No. Displayed periodically.	Displayed periodically.
No. 0605-0000	Enter process date code.	Enter process date code.

Error No.	Error Message	Cause / Solution
No. 1101-0000	Wrapper not connected.	CN-A connection (between P-857 and connector) Fuse:15/16 - Main panel Wapper 24V P.S. F1, F2 P-857 CPU
No. 1102-0000	Wrapper maltuntion	Electro magnetic contactor (13/14 not connected)
No. 1601-0000	Scale is not connected.	SCALE connection(between P-857 and connector)
No. ????	No error message. Turns to wrapping mode.	CN-B connection (between printer and connector)
No. ????	No error message.	Printer connection

7.2 PRINTER / APPLICATOR





PRINTER / APPLICATOR ERROR MESSAGES

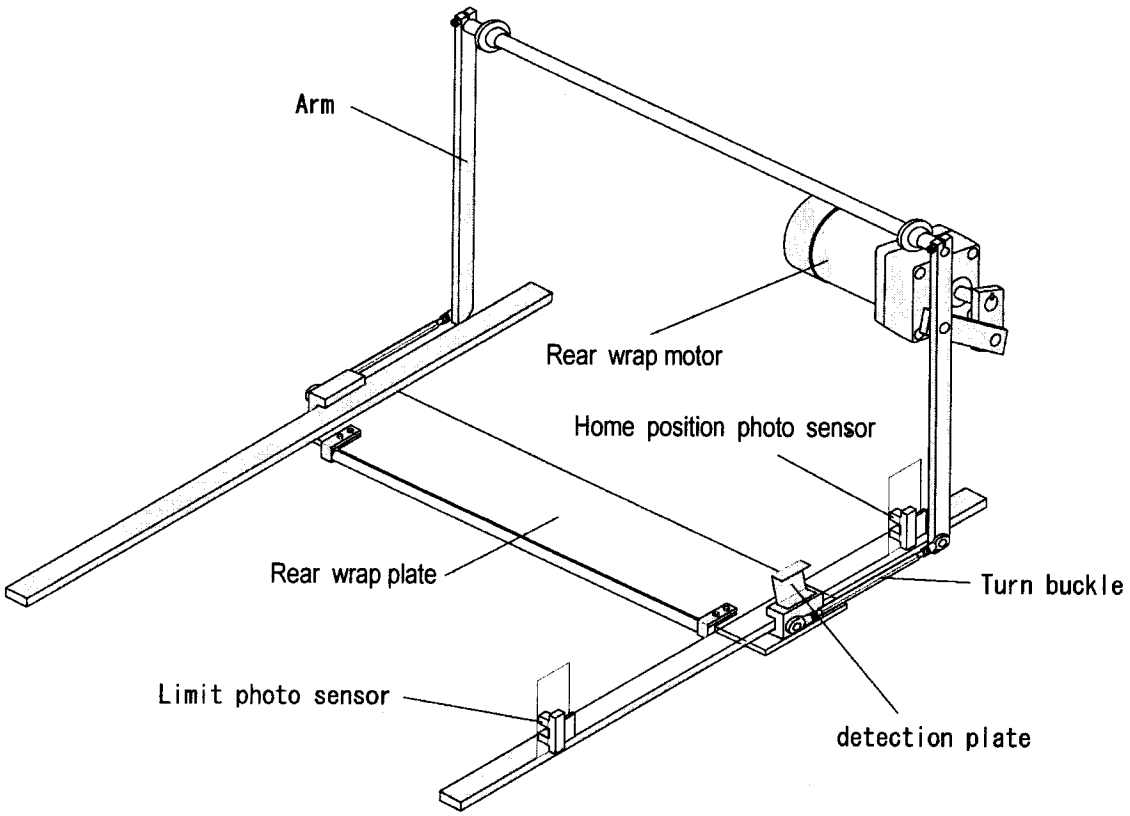
Error No.	Error Message	Probable Cause
0701-0000	Main printer is not connected.	ARCNET ↔ P-852:J7 CN-B ↔ SLS-100P ↔ P-852:J12
0702-0000	Main printer malfunction.	Stepping motor
0703-0000	Main printer head is up.	Head sensor
0704-0000	Item name: Character over	Registration area over
0705-0000	POP message: Character over	Registration area over
0706-0000	Extra message: Character over	Registration area over
0707-0000	Register code: Character over	Registration area over
0708-0000	Store name /address: Character over	Registration area over
0709-0000	Label is completed.	Out of labels Stepping motor
0710-0000	Label size error	Label sensor Incorrect labels
0711-0000	Label sensor error	Label sensor
0712-0000	Label is not set on label machine 1.	Fan
0713-0000	Label is in label machine 1.	Wrapper Solenoid
0717-0000	Arm has not returned to home position.	Arm upper limit photo sensor
0721-0000	Printer 1 labeling machine performance error	Arm upper limit photo sensor

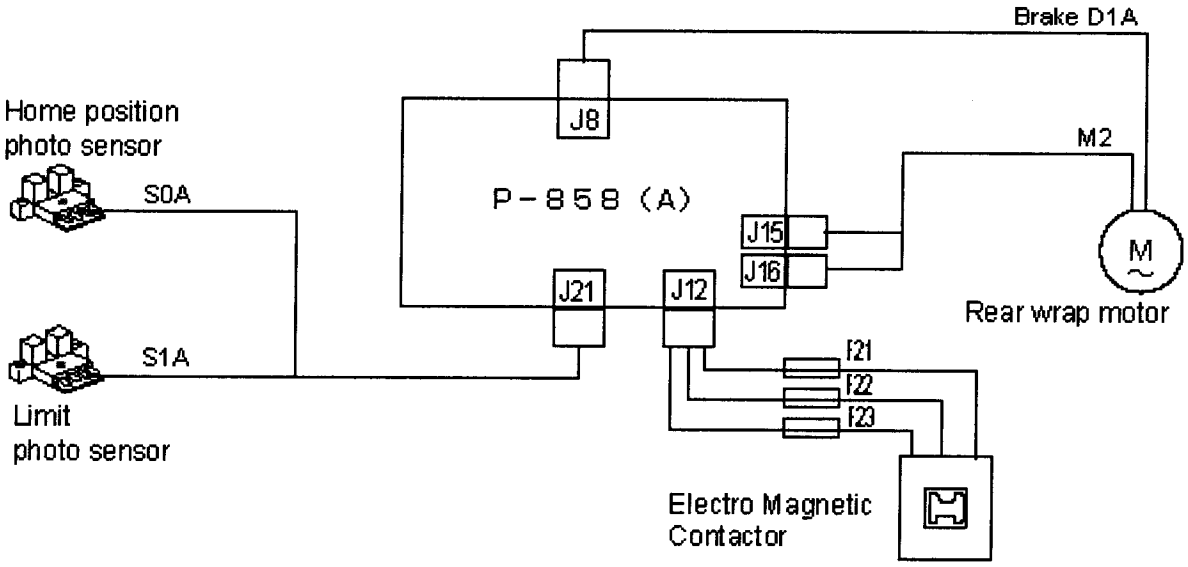
Error No.	Error Message	Probable Cause
0722-0012	To cancel the error, turn off the power once and turn on the power againafter 5 seconds.	Memory error
0722-0014	To cancel the error, turn off the power once and turn on the power againafter 5 seconds.	Watchdog error
0722-0015	To cancel the error, turn off the power once and turn on the power againafter 5 seconds.	Memory error 2
0722-0016	To cancel the error, turn off the power once and turn on the power againafter 5 seconds.	Motor combination error
0722-0017	To cancel the error, turn off the power once and turn on the power againafter 5 seconds.	Board error
0722-0020	To cancel the error, turn off the power once and turn on the power againafter 5 seconds.	Communication error between detector and amplifier.
0722-0030	To cancel the error, turn off the power once and turn on the power againafter 5 seconds.	Correction error
0722-0037	To cancel the error, turn off the power once and turn on the power againafter 5 seconds.	Parameter error
0722-0050	To cancel the error, turn off the power once and turn on the power againafter 5 seconds.	Overload
0722-0056	To cancel the error, turn off the power once and turn on the power againafter 5 seconds.	System error

Error No.	Error Message	Probable Cause
0723-0002	Press CLEAR to cancel the error and press RETURN.	Check sum error
0723-0003	Press CLEAR to cancel the error and press RETURN.	Character error
0723-0004	Press CLEAR to cancel the error and press RETURN.	Command error
0723-0005	Press CLEAR to cancel the error and press RETURN.	Data number error
0723-0006	Press CLEAR to cancel the error and press RETURN.	Non-connection error
0723-0007	Press CLEAR to cancel the error and press RETURN.	Low voltage
0723-0010	Press CLEAR to cancel the error and press RETURN.	Absolute position loss
0723-0025	Press CLEAR to cancel the error and press RETURN.	Excessive speed
0723-0031	Press CLEAR to cancel the error and press RETURN.	Excessive current
0723-0032	Press CLEAR to cancel the error and press RETURN.	Excessive voltage
0723-0033	Press CLEAR to cancel the error and press RETURN.	Command pulse error
0723-0035	Press CLEAR to cancel the error and press RETURN.	Excessive difference
0723-0052	Press CLEAR to cancel the error and press RETURN.	AMP operation alarm
0723-0061	Press CLEAR to cancel the error and press RETURN.	Start signal alarm
0723-0062	Press CLEAR to cancel the error and press RETURN.	Original point set start alarm
0723-0064	Press CLEAR to cancel the error and press RETURN.	Original point reset unfinished
0723-0090	Press CLEAR to cancel the error and press RETURN.	Battery warning
0723-0092	Press CLEAR to cancel the error and press RETURN.	Rotation sensor error
0723-0063	Press CLEAR to cancel the error and press RETURN.	Rotation position sensor error
0723-0160	Press CLEAR to cancel the error and press RETURN.	Upper limit sensor error
0723-0161	Press CLEAR to cancel the error and press RETURN.	Servo operation unfinished
0723-0162	Press CLEAR to cancel the error and press RETURN.	System error
0723-0163	Press CLEAR to cancel the error and press RETURN.	

Error No.	Error Message	Probable Cause
0724-0000	Confirm the connection of the board for the printer.	P-901(Applicator control) board is not connected.

7.3 REAR WRAP MOTOR



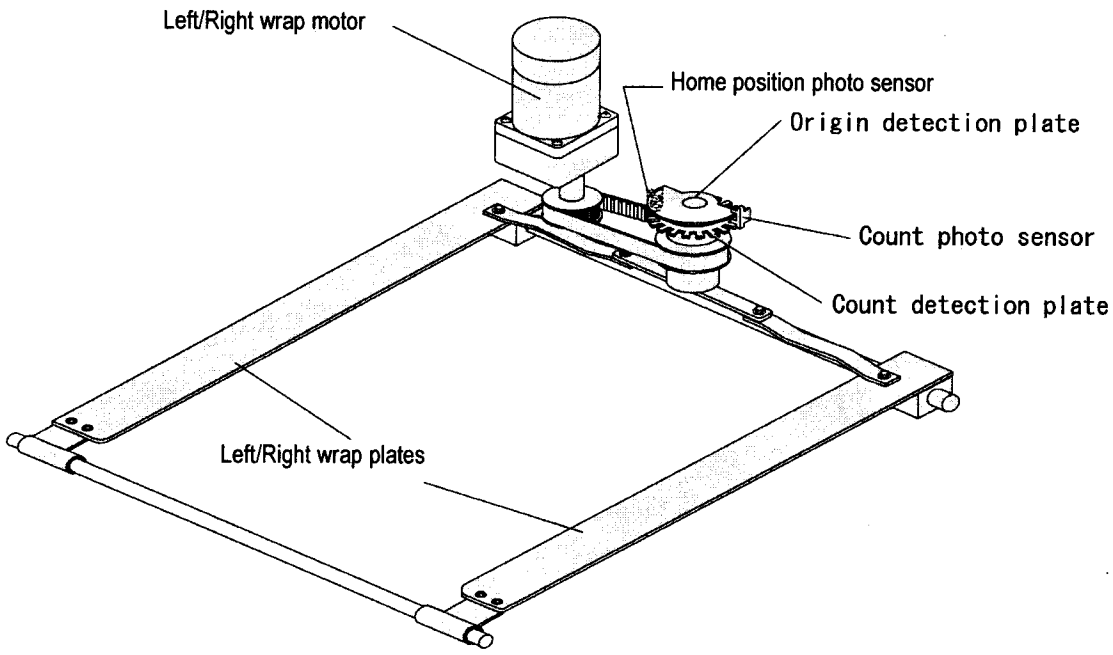


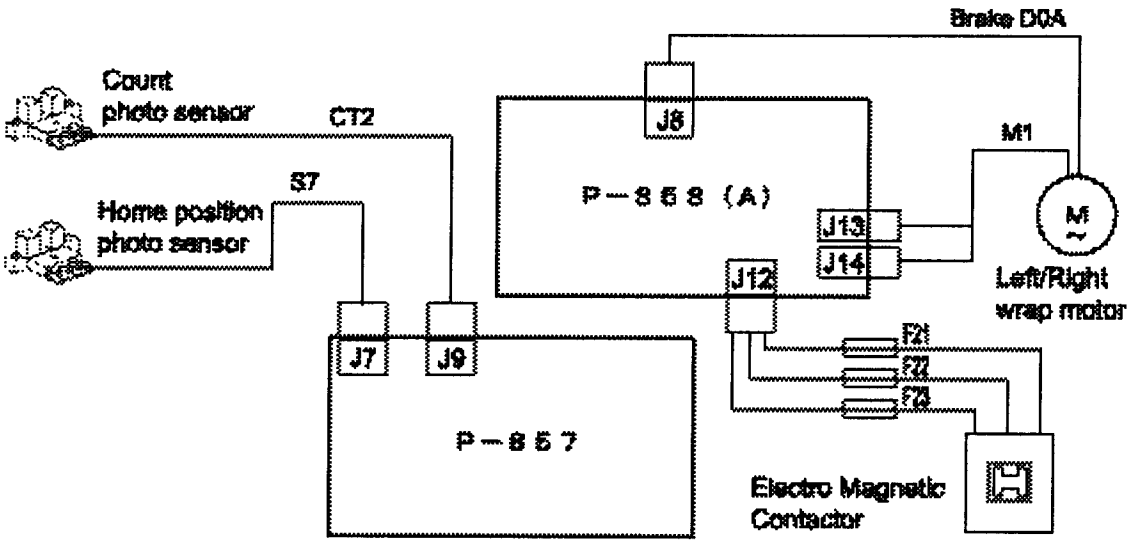
REAR WRAP MOTOR ERROR MESSAGE

Error No.	Error Message	Symptom	Check
No. 1104-0000	Wrapper action error [Rear wrap motor]	Rear wrap plate does not move.	Rear wrap plate is not at home position.
No. 1104-0000	Wrapper action error [Rear wrap motor]	Operation error at reset.	Motor brake
No. 1104-0000	Wrapper action error [Rear wrap motor]	Rear wrap plate does not move.	Home position photo sensor
No. 1104-0000	Wrapper action error [Rear wrap motor]	Rear wrap plate does not move.	Motor
No. 1104-0000	Wrapper action error [Rear wrap motor]	Slow-moving.	Wrap plate and arms are not parallel binding.
No. 1104-0000	Wrapper action error [Rear wrap motor]	Rear wrap plate moves forward.	Limit photo sensor

* 1104-0001: Only when sensor is blocked if canble is damaged/disconnected get error "0000".

7.4 LEFT / RIGHT WRAP MOTOR

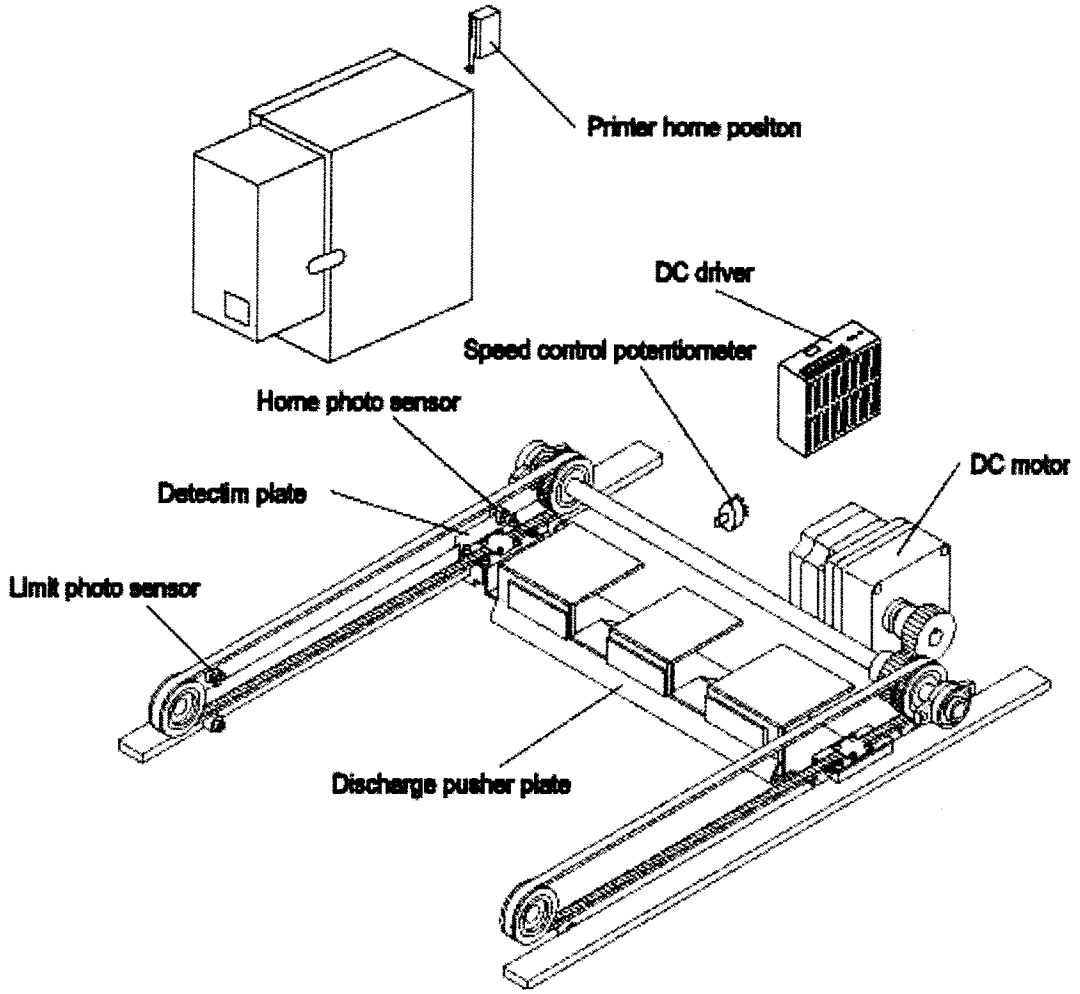


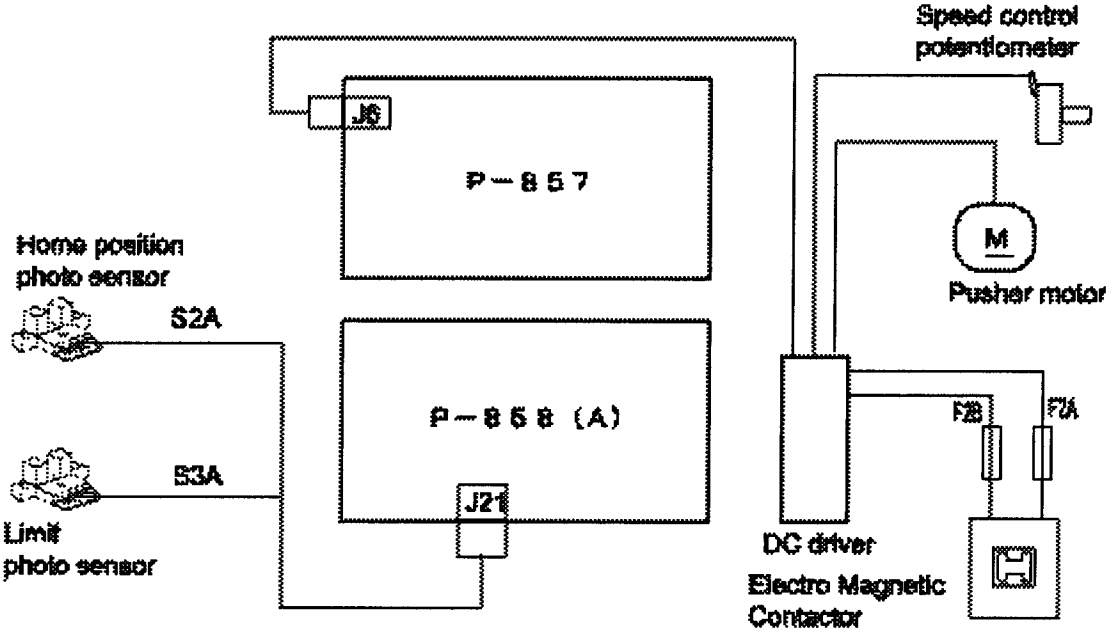


LEFT / RIGHT WRAP MOTOR ERROR MESSAGES.

Error No.	Error Message	Symptom	Check
No. 1105-0000	Wrapper action error. [Left/Right wrap motor]	Wrap plates do not move.	Side wrap plates are not at home position.
No. 1105-0000	Wrapper action error. [Left/Right wrap motor]	Action error at reset.	Motor brake
No. 1105-0000	Wrapper action error. [Left/Right wrap motor]	Wrap plates do not move.	Home position photo sensor
No. 1105-0000	Wrapper action error. [Left/Right wrap motor]	Wrap plates do not move.	Motor
No. 1105-0000	Wrapper action error. [Left/Right wrap motor]	Wrap plates stopped at the inside position.	Count photo sensor
No. 1105-0000	Wrapper action error. [Left/Right wrap motor]	Fuse	F2A / F2B (rear panel)

7.5 DISCHARGE PUSHER

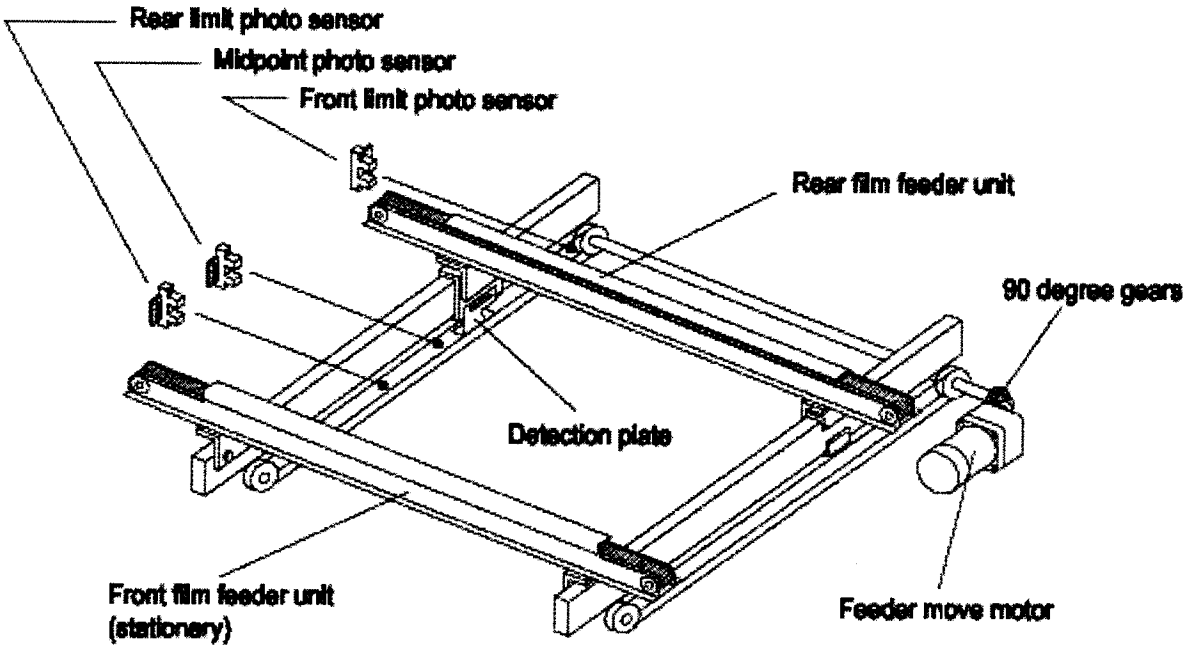


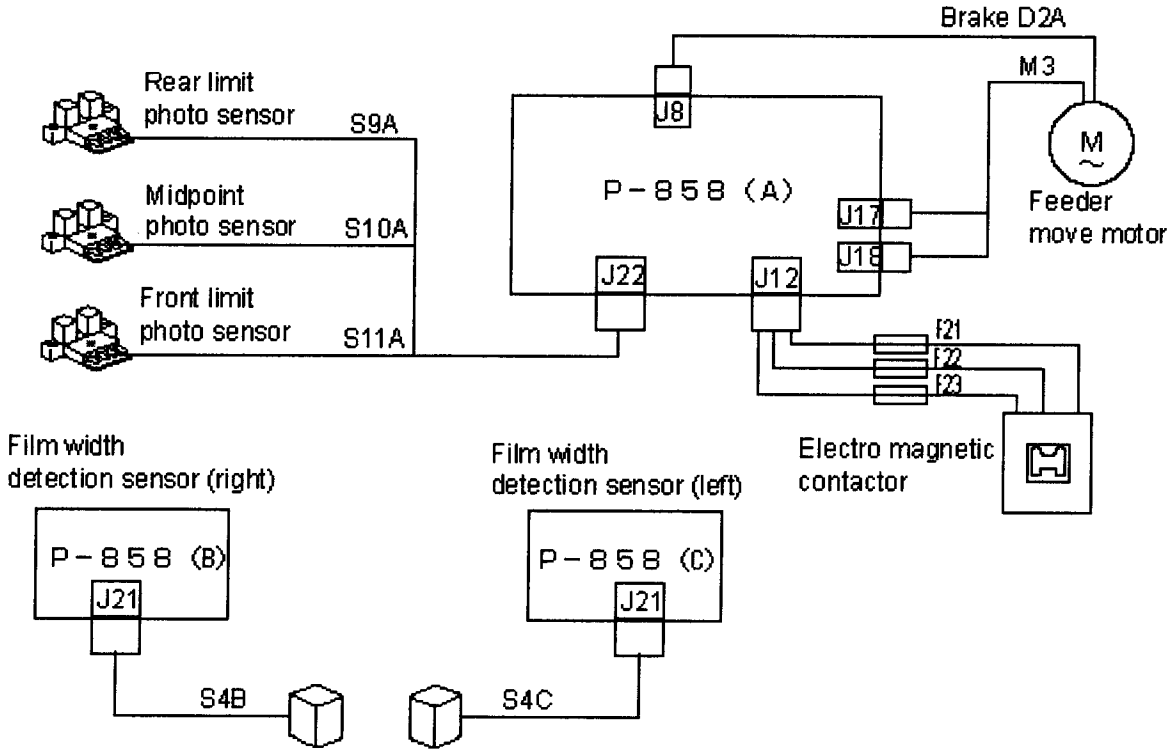


PUSHER ERROR MESSAGES

Error No.	Message	Symptom	Check
No. 1106-0000	Wrapper action error [Eject pusher motor]	Pusher does not move.	F2A, F2B
No. 1106-0000	Wrapper action error [Eject pusher motor]	Pusher does not move.	Out of home position. Dischage pusher is not at home position
No. 1106-0000	Wrapper action error [Eject pusher motor]	Pusher does not move.	Home positon photo sensor
No. 1106-0000	Wrapper action error [Eject pusher motor]	Pusher does not move.	DC driver
No. 1106-0000	Wrapper action error [Eject pusher motor]	Pusher does not move. Slow-moving.	Speed control
No. 1106-0000	Wrapper action error [Eject pusher motor]	Pusher moves forward.	Limit photo sensor
No. 1106-0000	Wrapper action error [Eject pusher motor]	Pusher does not move.	Optional conveyor overflow sensor is blocked.
No. 1106-0002	Wrapper action error [Printer position Front/Back]	Error during wrapping. Printer has moved forward.	Printer home position micro switch
No. 1117-0000	Wrapper DCB controller error	Pusher does not move.	DC driver DC controller Motor Check 30 voltage

7.6 REAR FILM FEEDER MOVEMENT

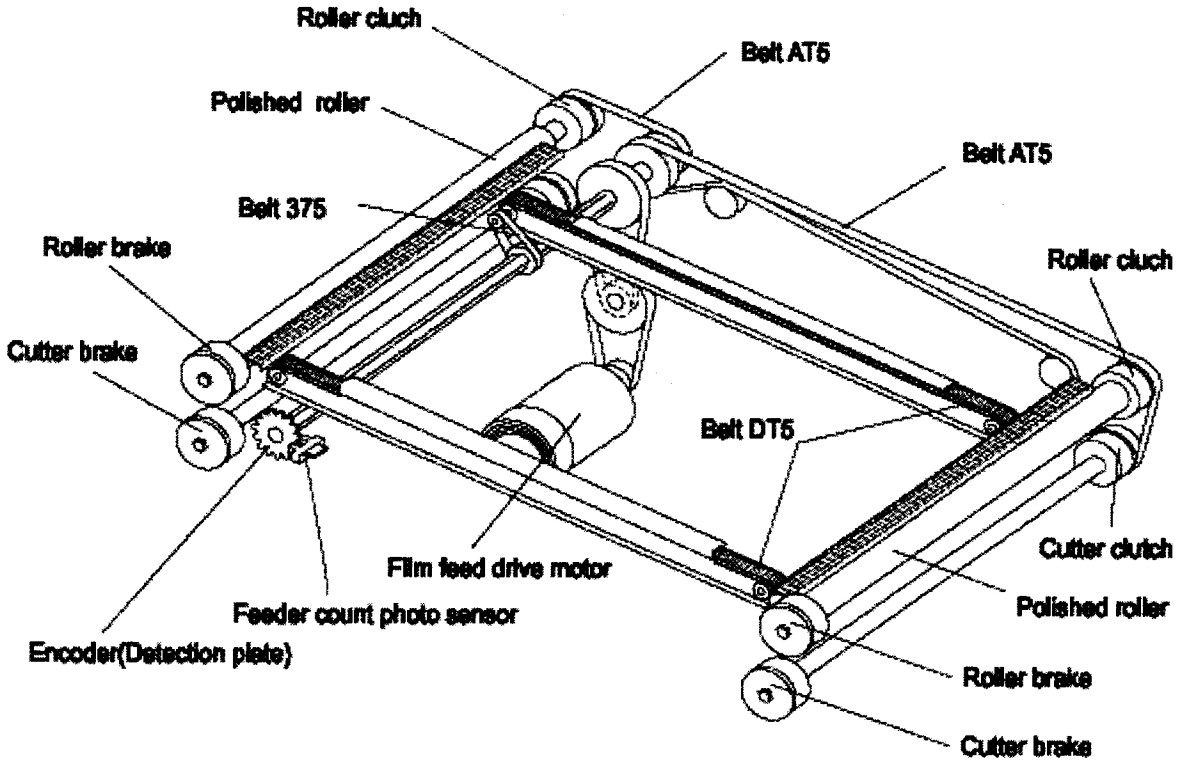


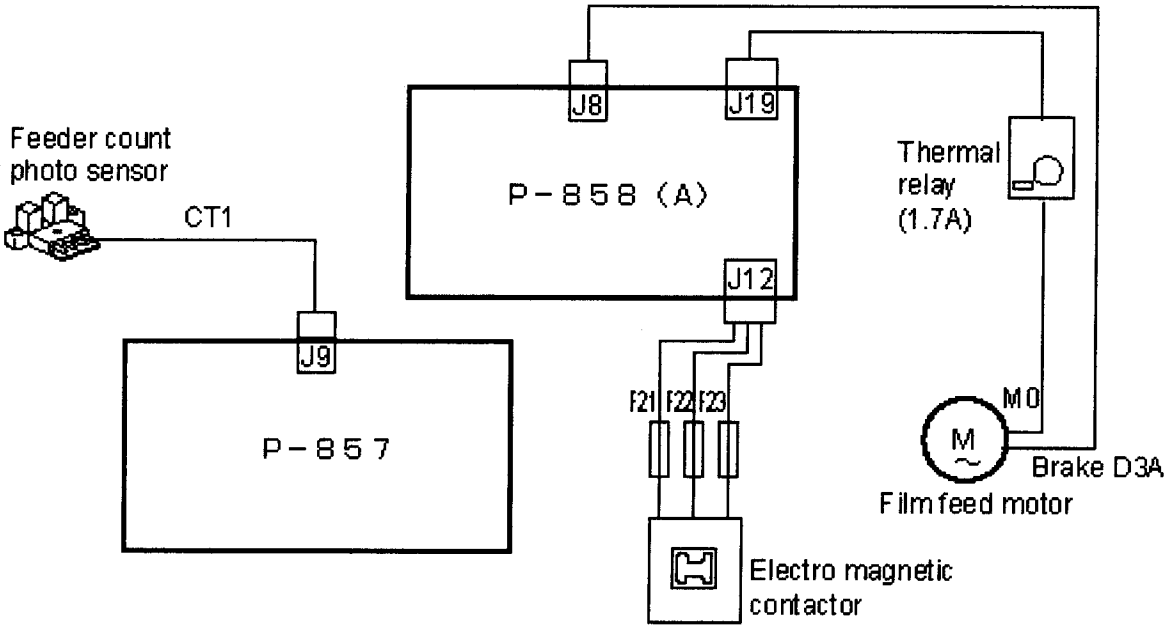


REAR FILM FEEDER MOVEMENT ERROR MESSAGES

Error No.	Message	Phenomenon	Check
No. 1107-0000	Wrapper action error [Film feeder move motor]	Stops at rear limit.	Rear limit photo sensor
No. 1107-0000	Wrapper action error [Film feeder move motor]	Stops at front limit.	Film width detection sensor (Located on Film Press Roller assembly)
No. 1107-0000	Wrapper action error [Film feeder move motor]	Stops front action.	Front limit photo sensor
No. 1107-0000	Wrapper action error [Film feeder move motor]	No movement.	Feeder move motor

7.7 FILM FEED DRIVE

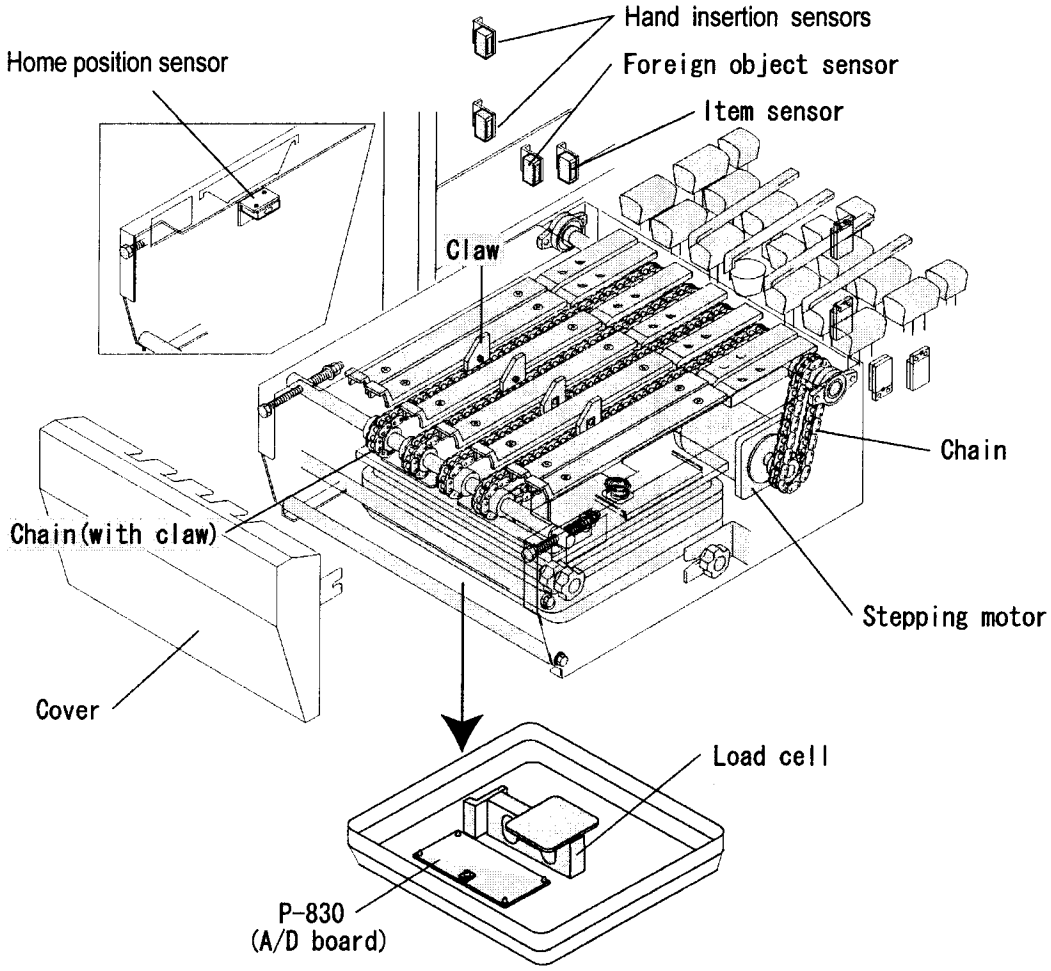


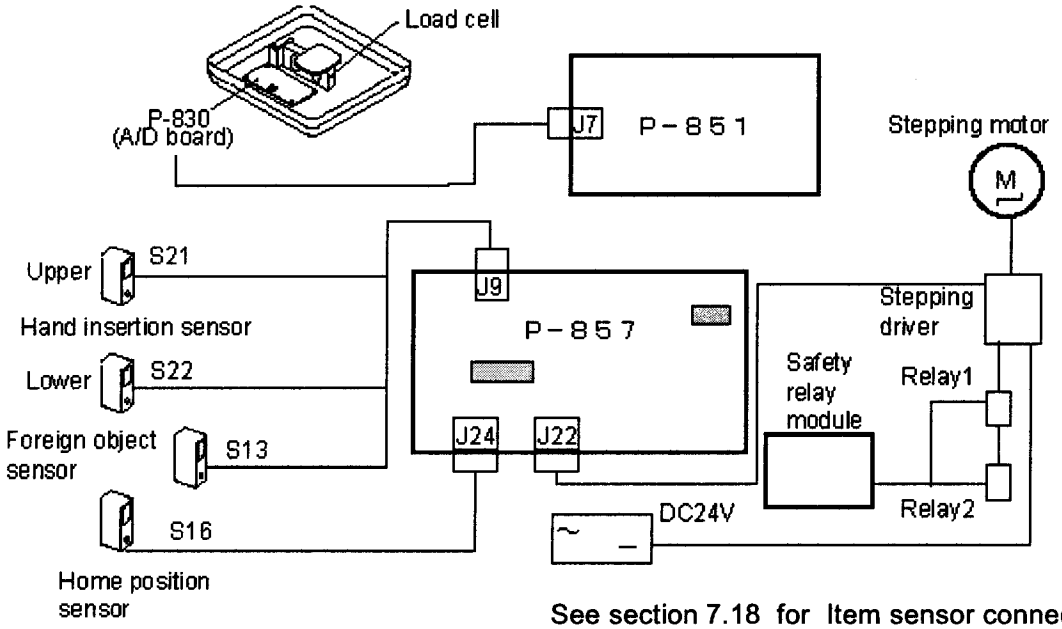


FILM FEED DRIVE ERROR MESSAGES

Error No.	Message	Phenomenon	Check
No. 1108-0000	Wrapper action error [Film feeder motor]	Film is not fed.	Motor
No. 1108-0000	Wrapper action error [Film feeder motor]	Film over. Error message appears at film detection is unavailable. "Film over" sensor does not check if no counts are detected. Film over (with perforation) and 2 inch strip.	Count photo sensor Cutter home position sensor (If DIP SW8 on wrapper CPU board P-859 is set ?????, error 1115 is not displayed.)

7.8 INFEED CONVEYOR / SCALE UNIT





See section 7.18 for Item sensor connection.

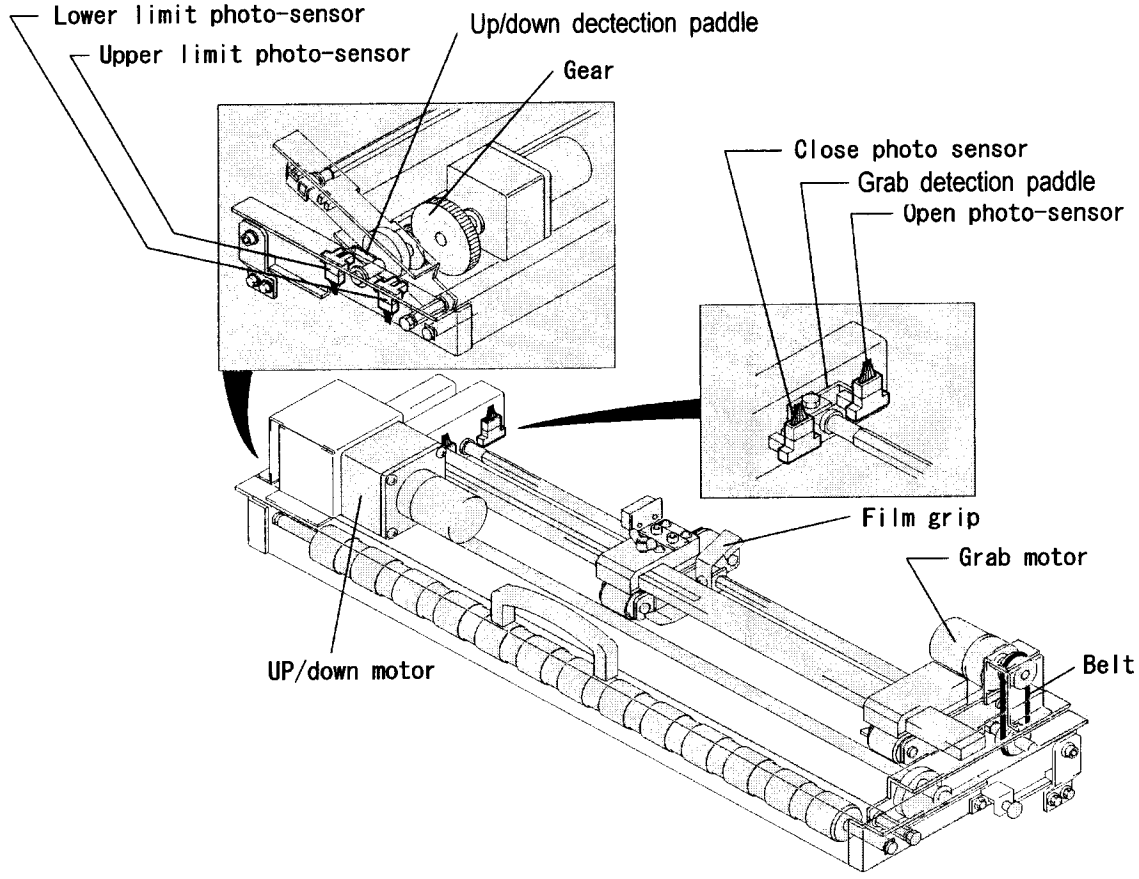
Operation

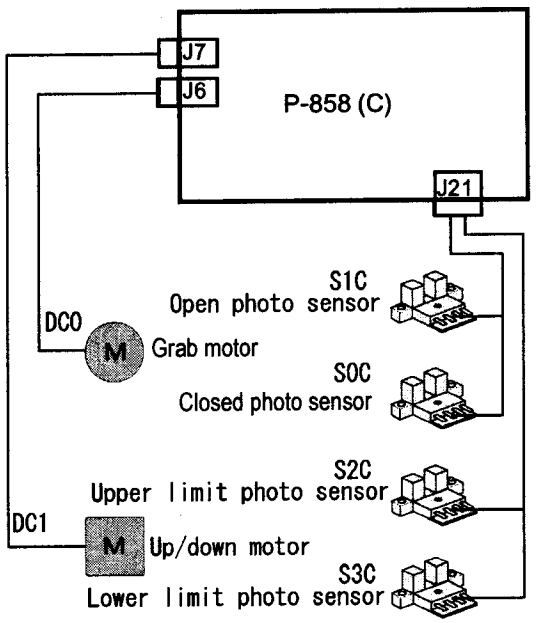
1. After the tray placed on the conveyor is finished being weighed by the built-in scale, and the weight has stabilized, the stepping motor starts.
2. This motor drives a chain that transports the tray onto the lift.
3. The chain stops when the chain claw passes the home position sensor.
4. The stop position of the chain (with claws) can be adjusted by sliding the home position sensor.

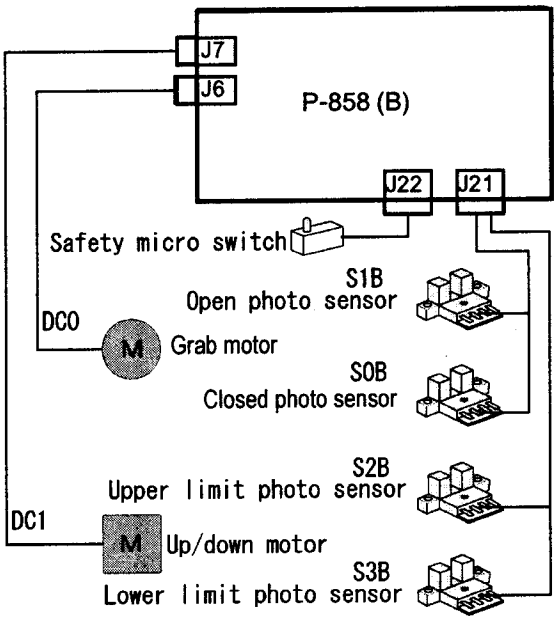
Infeed Conveyor Error Messages.

Error No.	Message	Symptom	Check
No. 1109-0000	Wrapper action error (Infeed conveyor motor)	Conveyor (infeed claw chain) does not move.(Motor does not move.)	Connection of relay connectors
No. 1109-0000	Wrapper action error (Infeed conveyor motor)	Conveyor (chain) does not move. (Motor moves.)	Broken chains
No. 1134-0000	Infeed conveyor is pulled out.	At start	Door open error
No. 1147-0001	Hand is inserted. (Conveyor)	Do not put hand into Conveyor	Hand insertion sensor
No. 1603-0000	Weight is on weigh platter.		Remove weight. Scale is out of calibration. Calibrate to reset zero point.
No. 1601-0000	Scale is not connected.	Do not put hand into Conveyor	Scale cable is disconnected. Scale cable is damaged.

7.9 FILM PRESS ROLLER







Film Press Roller Error Messages

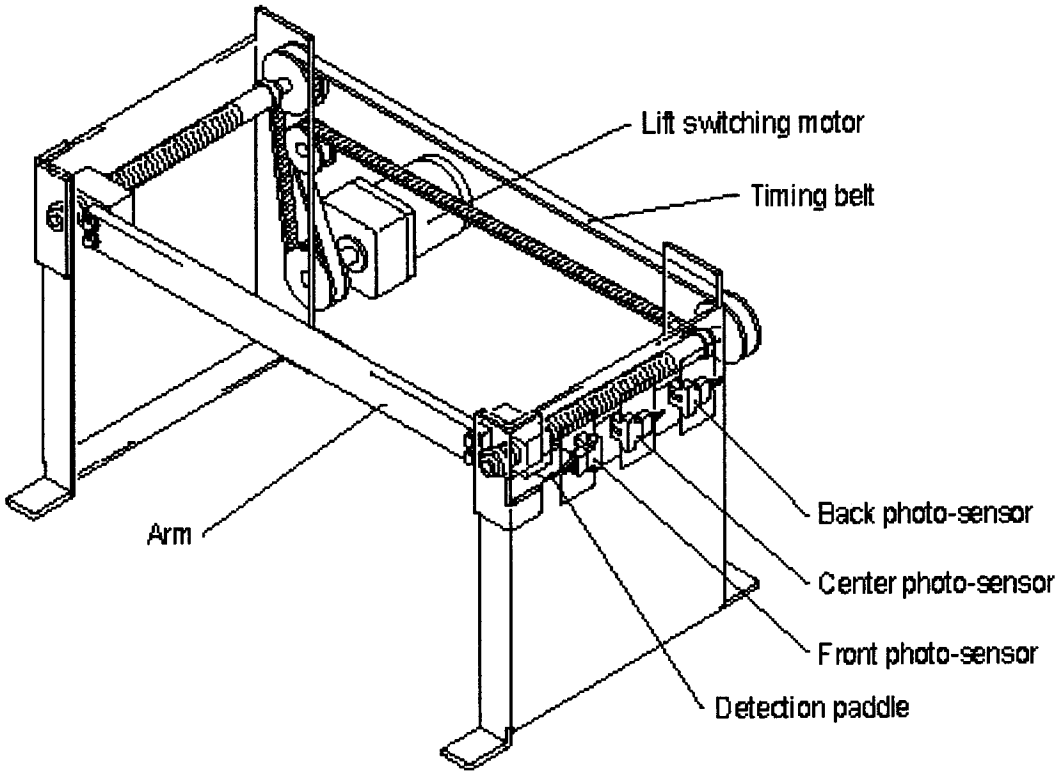
1110- Film press raise/lower

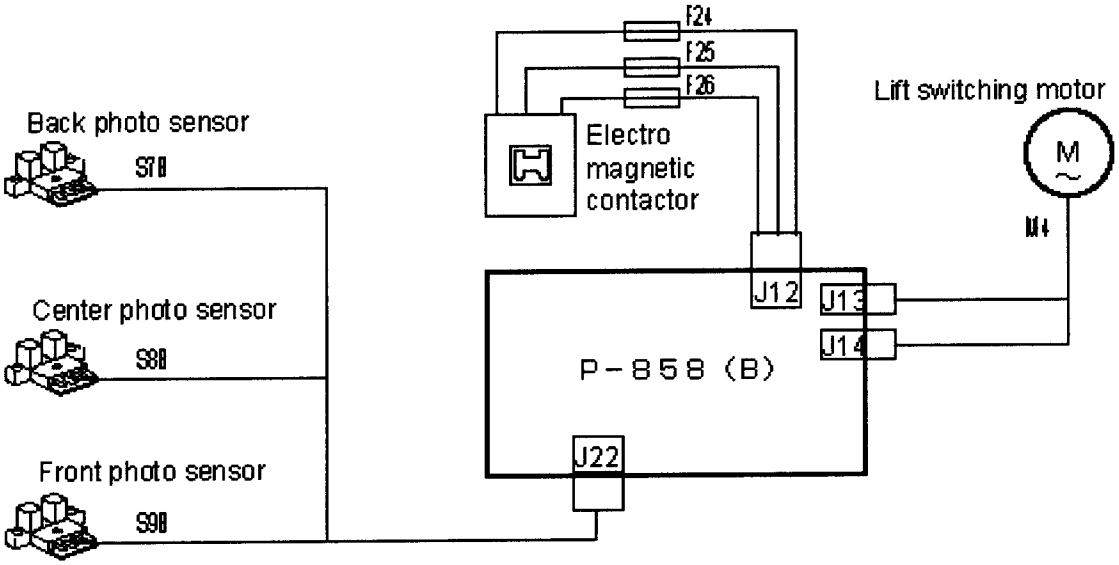
Error No.	Message	Symptom	Check
No. 1110-0001 Right No. 1110-0002 Left	Wrapper action error [Film switch motor]	Downward error action at switching. (Feeder is normal)	Upper limit photo sensor
No. 1110-0001 Right No. 1110-0002 Left	Wrapper action error [Film switch motor]	Switching error (Feeder not movable)	Lower limit photo sensor
No. 1110-0001 Right No. 1110-0002 Left	Wrapper action error [Film switch motor]	Switching error (Does not move up and down)	Motor

1111- Film grab paddles

Error No.	Message	Symptom	Check
No. 1111-0001 Right No. 1111-0002 Left	Wrapper action error [Film switch motor]	Switching error (Does not move up and down)	Closed photo sensor
No. 1111-0001 Right No. 1111-0002 Left	Wrapper action error [Film grab motor]	Switching error (Lever not closed)	Open photo sensor
No. 1111-0001 Right No. 1111-0002 Left	Wrapper action error [Film grab motor]	Switching error (Lever not open)	Motor
No. 1111-0001 Right No. 1111-0002 Left	Wrapper action error [Film grab motor]	Switching error (Lever not to move)	Film width detecting sensor

7.10 LIFT SIZE CHANGE

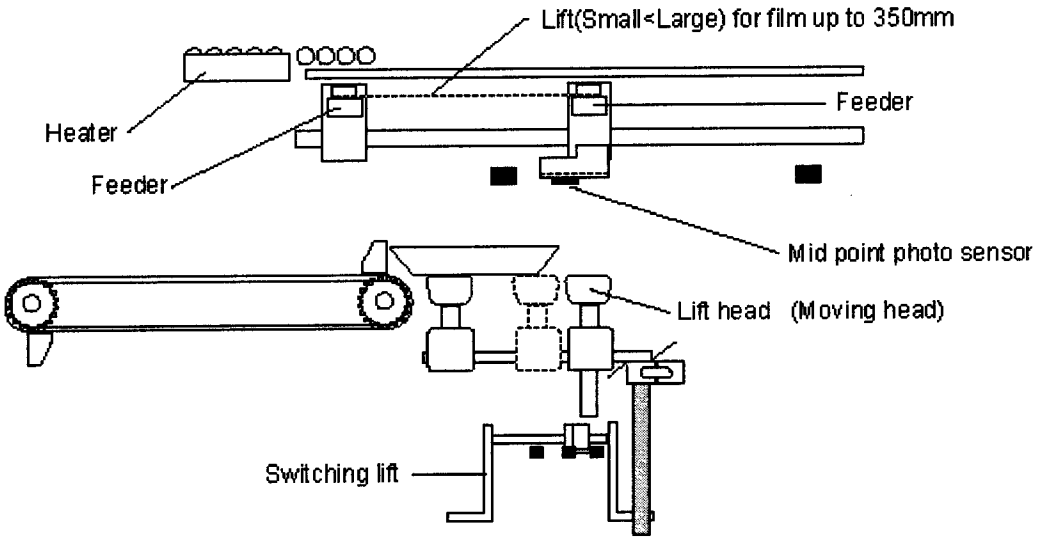




n Lift Size Error Messages

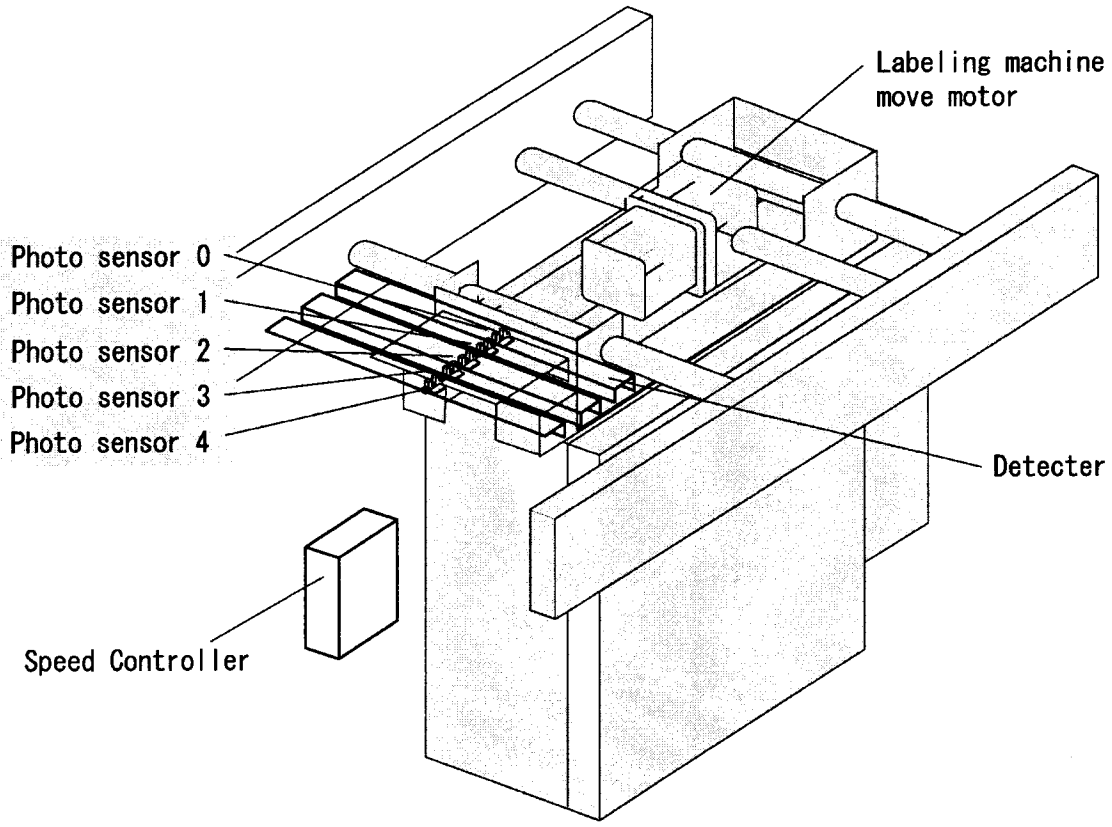
Error No.	Message	Symptom	Check
No. 1112-0000	Wrapper action error [Lift switching motor]	When switching the lift	Front/center/back photo sensor
No. 1112-0000	Wrapper action error [Lift switching motor]	When switching the lift	Mechanical structure damage
No. 1112-0000	Wrapper action error [Lift switching motor]	When switching the lift	Motor
No. 1112-0000	Wrapper action error [Lift switching motor]	When switching the lift	F24, F25 Main panel F3 (P-858B)

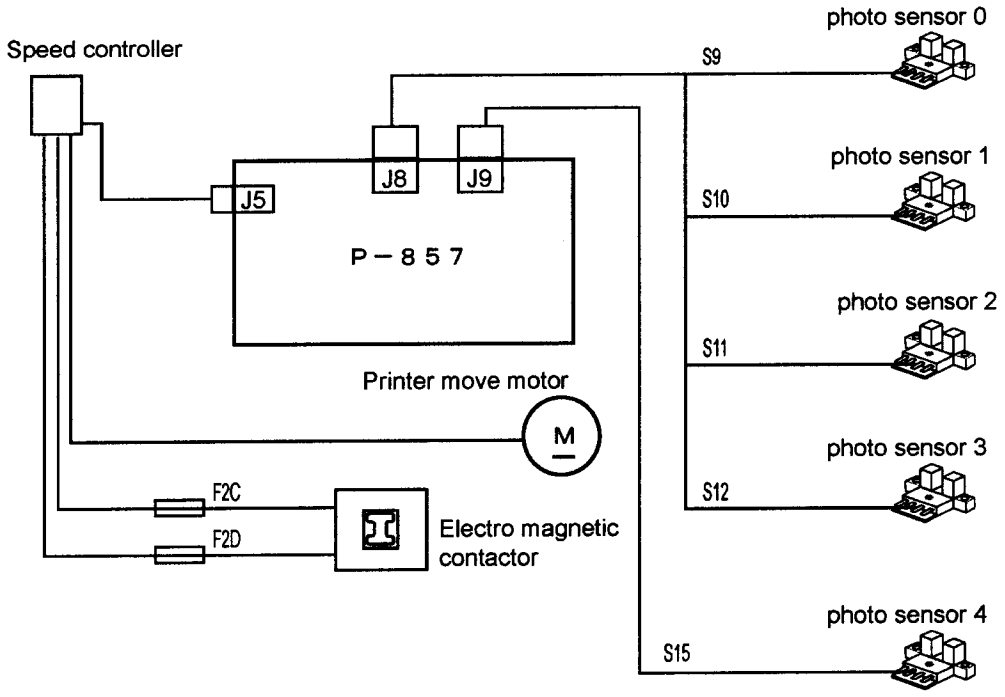
Error No.	Message	Symptom	Check
No. 1135-0000	Lift (large or small)	Lifter does not rise.	Tray size (large/small) incorrectly programmed - Check Tray Master
No. 1135-0000	Lift (large or small)	Lifter does not rise.	Feeder movement mid point photo sensor



Note: Rear feeder position photo sensors are on the left side of the OMNi.
See figure in section 7.6.

7.11 PRINTER MOVEMENT (L/R)

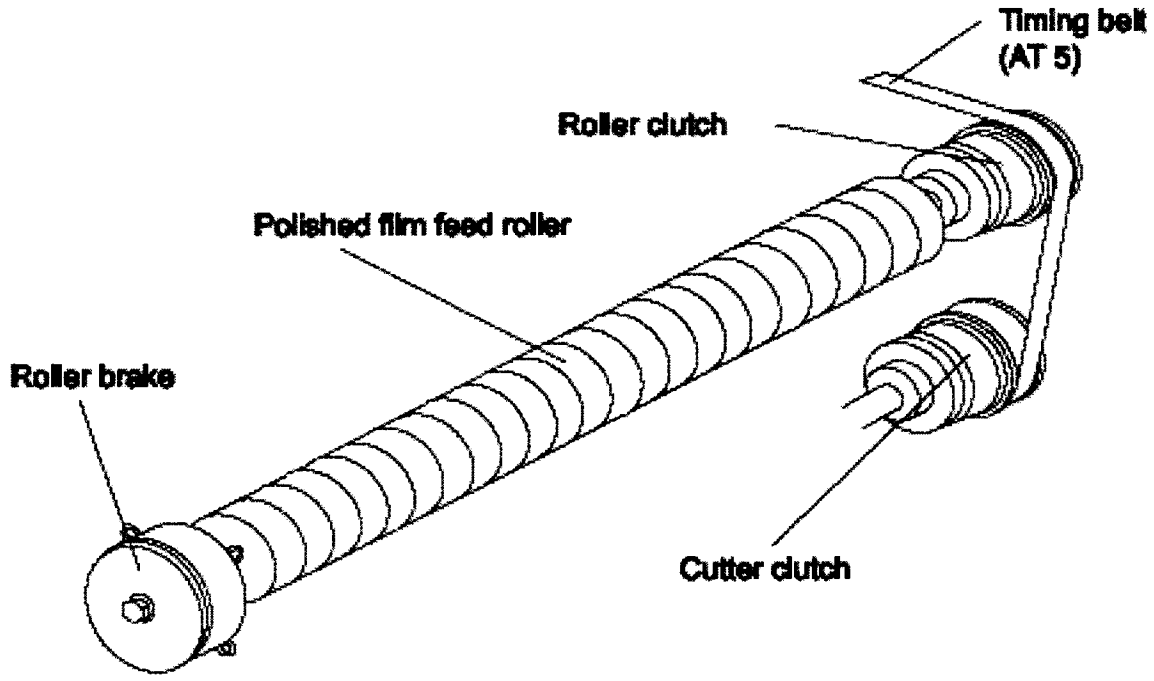


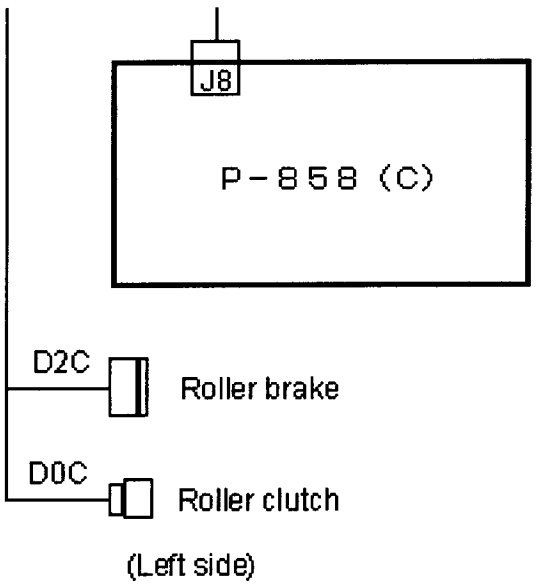


n Printer Movement Error Messages

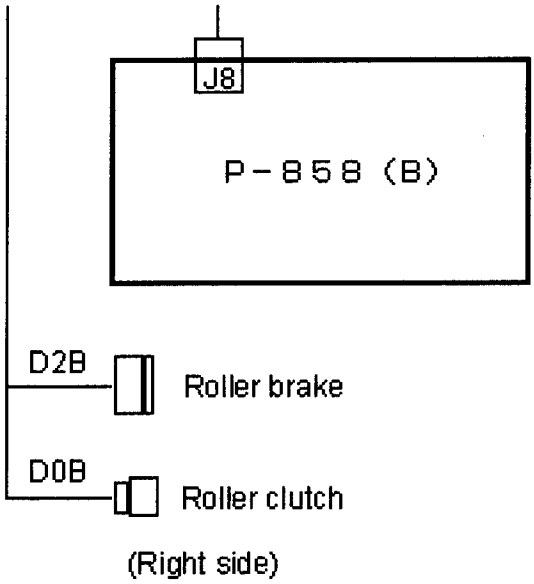
Error No.	Message	Symptom	Check
No. 1113-0000	Wrapper action error (Labeling machine move motor)	Printer touches the left side.	Position photo sensor (0, 1, 2, 3, 4)
No. 1113-0000	Wrapper action error (Labeling machine move motor)	Printer reciprocates.	Position photo sensor (0, 1, 2, 3, 4)
No. 1113-0000	Wrapper action error (Labeling machine move motor)	Printer does not move.	Brake pack
No. 1113-0000	Wrapper action error (Labeling machine move motor)	Printer does not move.	Motor
	Wrapper action error (Labeling machine move motor)	Fuse	F2C, F2D

7.12 POLISHED FILM FEED ROLLER





(Left side)

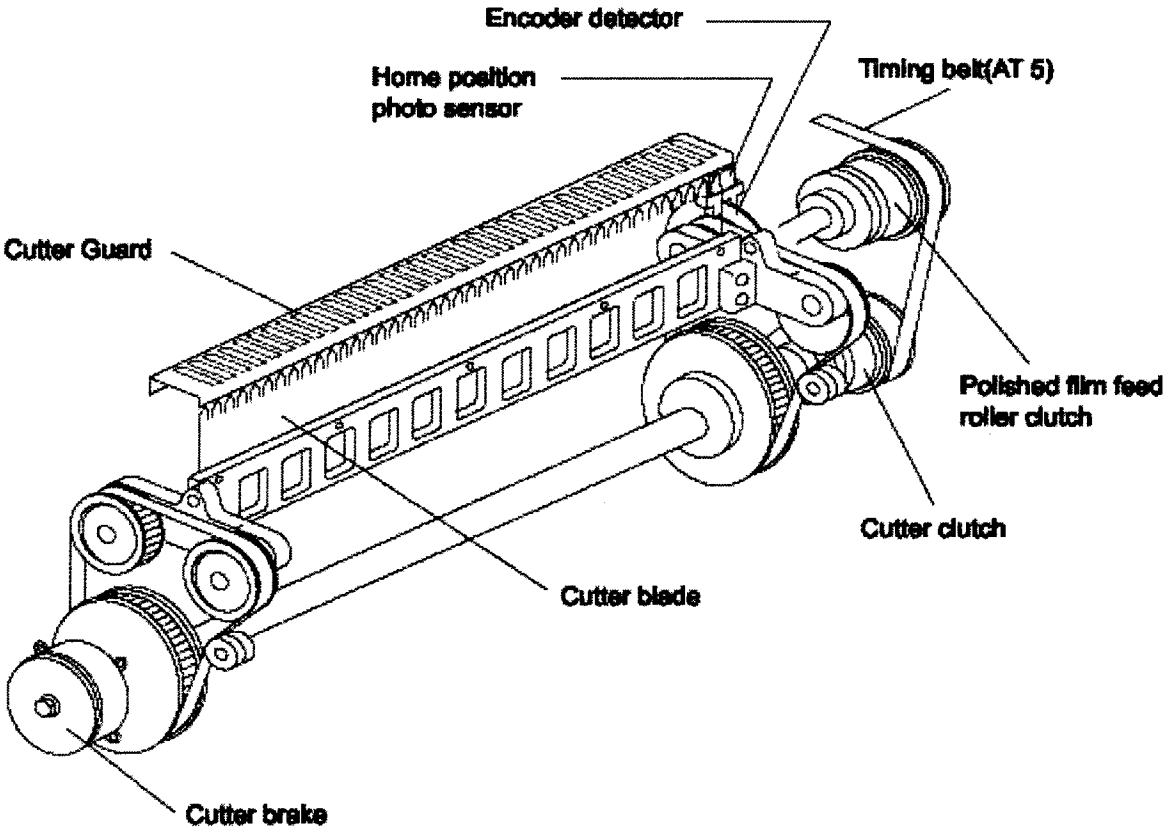


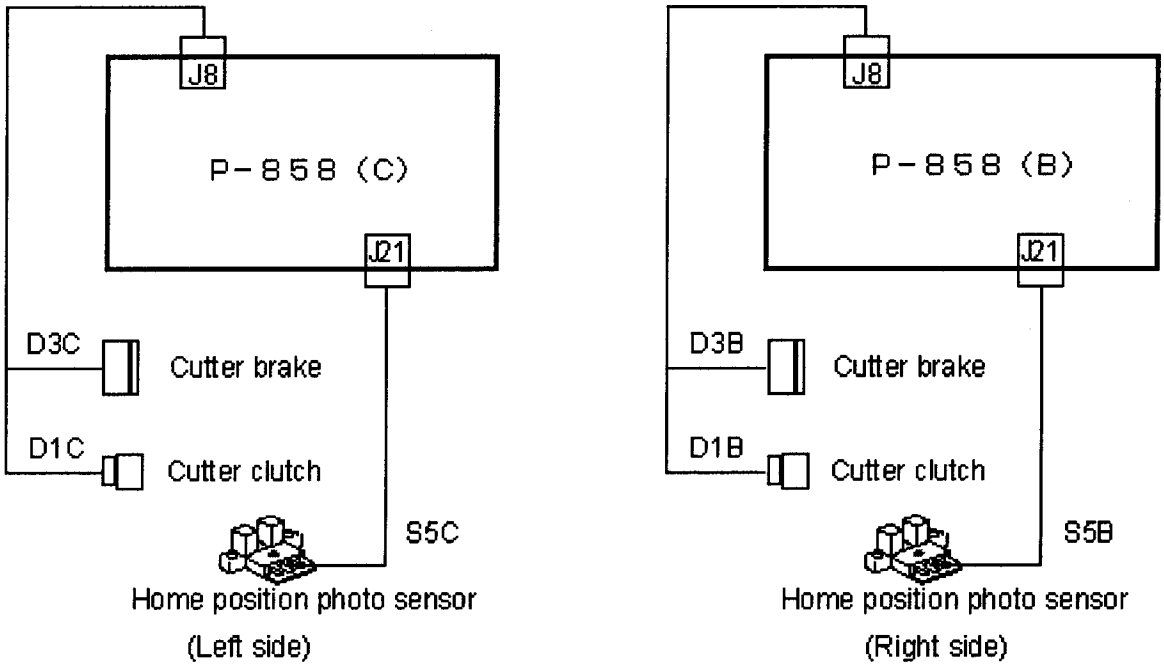
(Right side)

n Film Roller Error Messages [No Message]

Error No.	Message	Symptom	Check
No. 1114-0001 Right No. 1114-0002 Left	Roller clutch/brake None	Film waiting condition is not good.	Brake
No. 1114-0001 Right No. 1114-0002 Left	Roller clutch/brake None	Film waiting condition is not good.	Clutch

7.13 FILM CUTTER

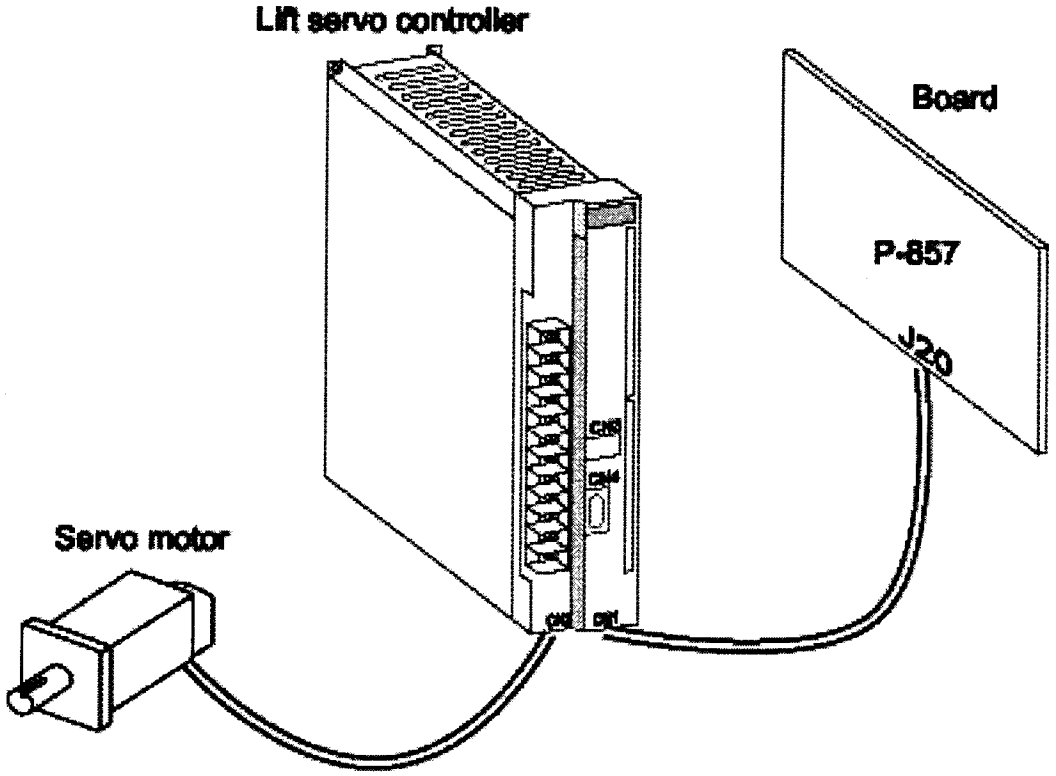


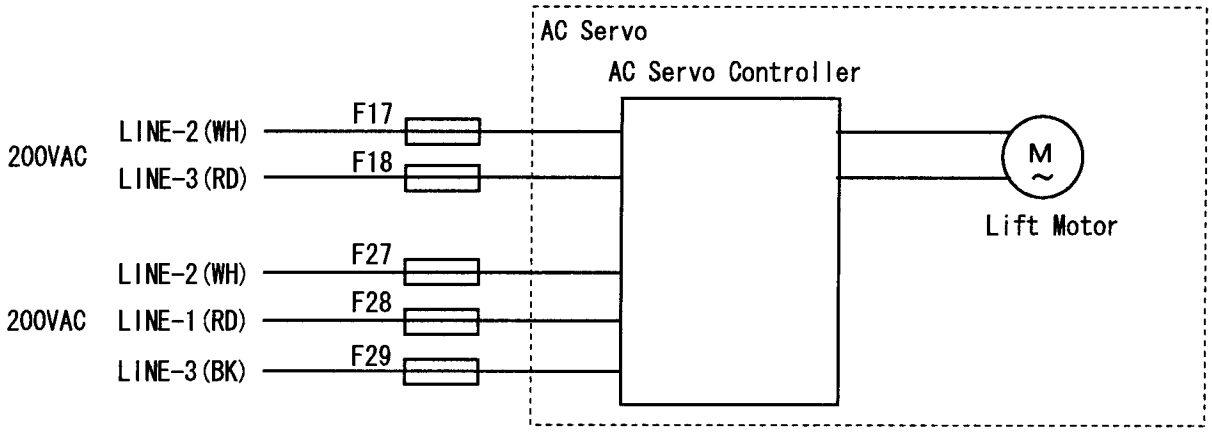


n Cutter Error Messages

Error No.	Message	Symptom	Check
No. 1115-0001 Right No. 1115-0002 Left	Wrapper action error (Film cutter)	Film over (no perforation)	Clutch
No. 1115-0001 Right No. 1115-0002 Left	Wrapper action error (Film cutter)	Film over (with perforation)	Home position photo sensor
No. 1115-0001 Right No. 1115-0002 Left	Wrapper action error (Film cutter)	Film winds around roller. (Two perforations)	Brake

7.14 LIFT SERVO CONTROLLER

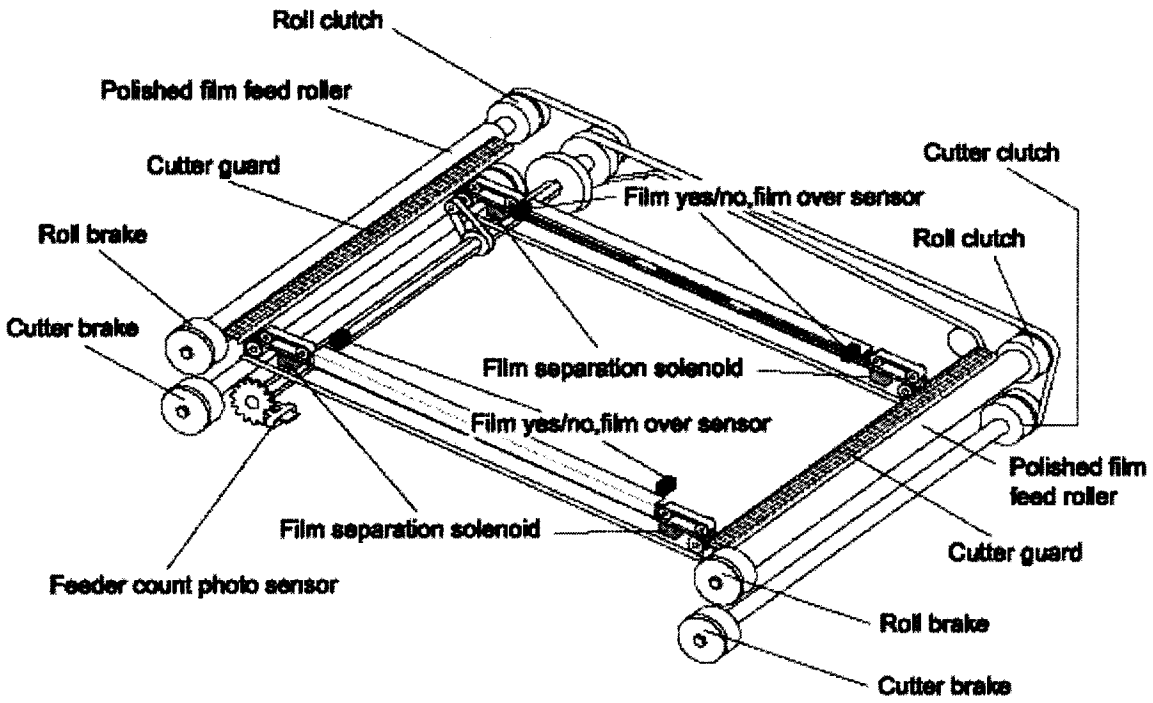


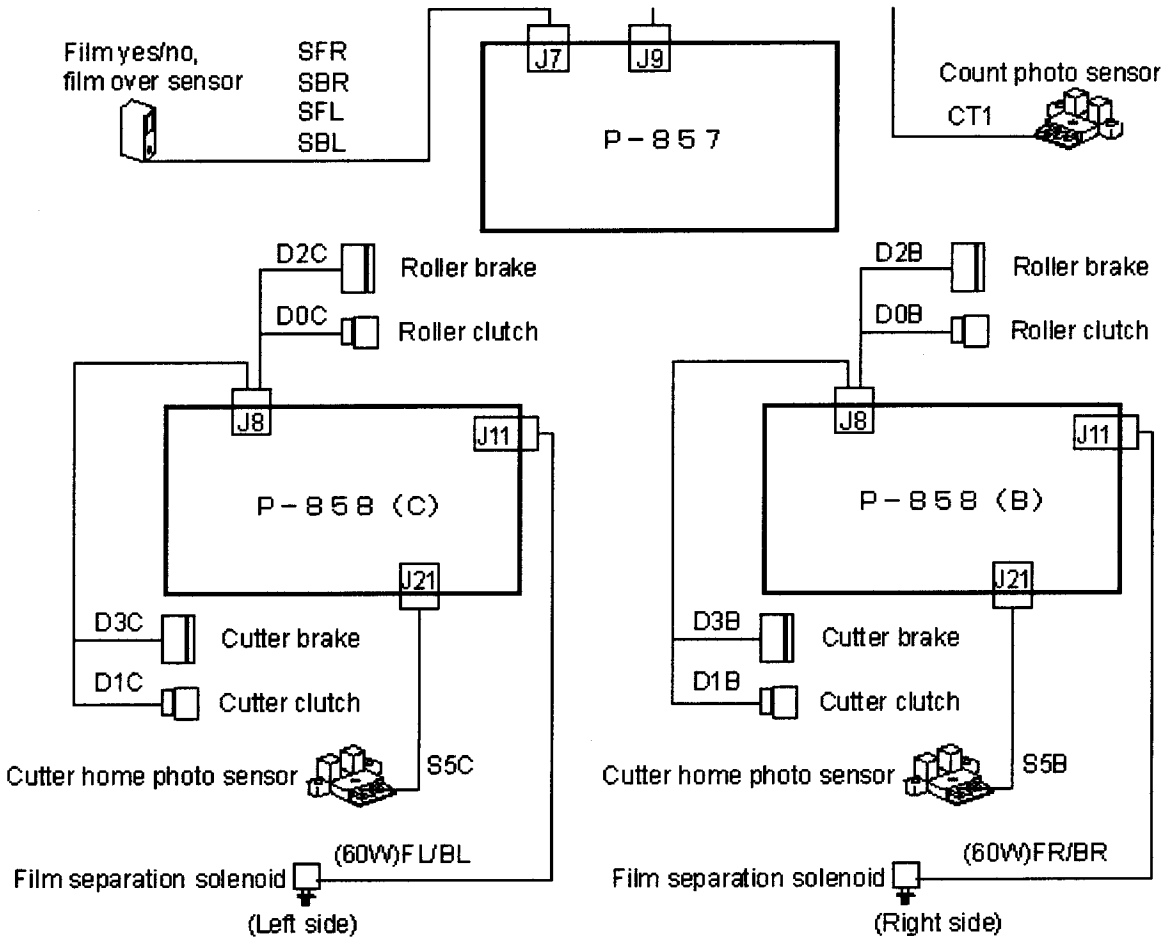


n Lift servo Controller Error Messages

Error No.	Causes	Error No.	Causes
1116-0010	Shortage of voltage	1116-0051	Overload 2
1116-0012	Memory error no. 1	1116-0052	Excessive allowance
1116-0013	Clock error	1116-0070	Sensor error no. 3
1116-0014	Watchdog error	1116-0071	Sensor error no. 4
1116-0015	Memory error no. 2	1116-0074	OP memory error no. 1
1116-0016	Sensor error no. 1	1116-008E	RS232C error
1116-0017	PC board error	1116-008F	RS422 error
1116-0019	Memory error no. 3	1116-0090	Original point return not completed
1116-002	Sensor error no. 2	1116-0092	Battery disconnect warning
1116-0024	Grounding error	1116-0096	Original point set error
1116-0025	Absolute position disappear	1116-0097	Lift upper limit sensor
1116-0030	Regenerative error	1116-0098	Lift lower limit sensor
1116-0032	Excessive speed	1116-009E	Battery warning
1116-0033	Excessive voltage	1116-00E0	Over regenerative warning
1116-0037	Parameter error	1116-00E1	Overload warning
1116-0042	Feedback error	1116-00E3	Absolute position counter warning
1116-0045	Main circuit element overheat	1116-00E8	Servo erroneous stop
1116-004	Motor error	1116-00E9	Main circuit OFF warning
1116-0050	Overload no. 1		

7.15 FILM FEEDER



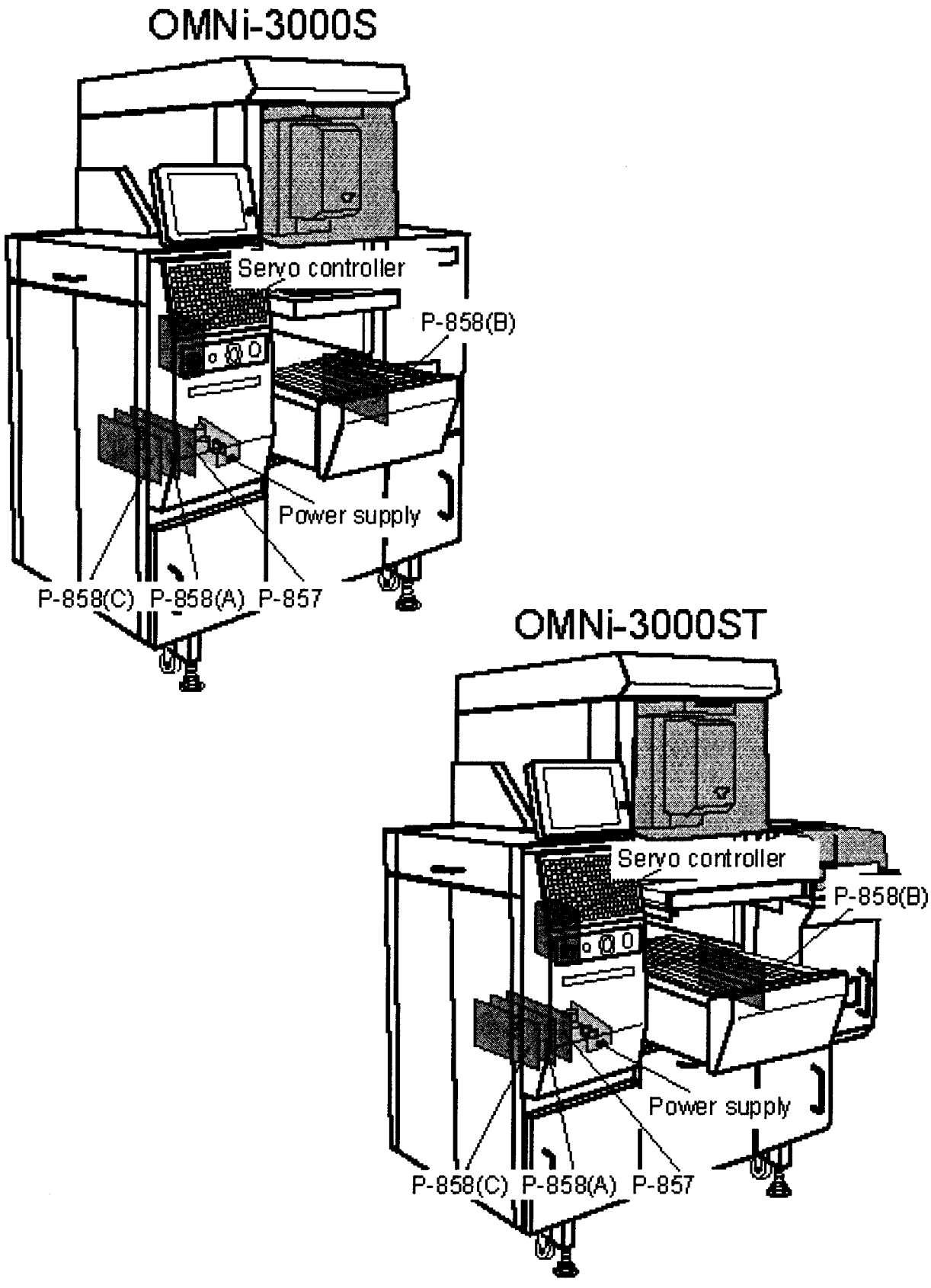


n Film Feeder Error Messages

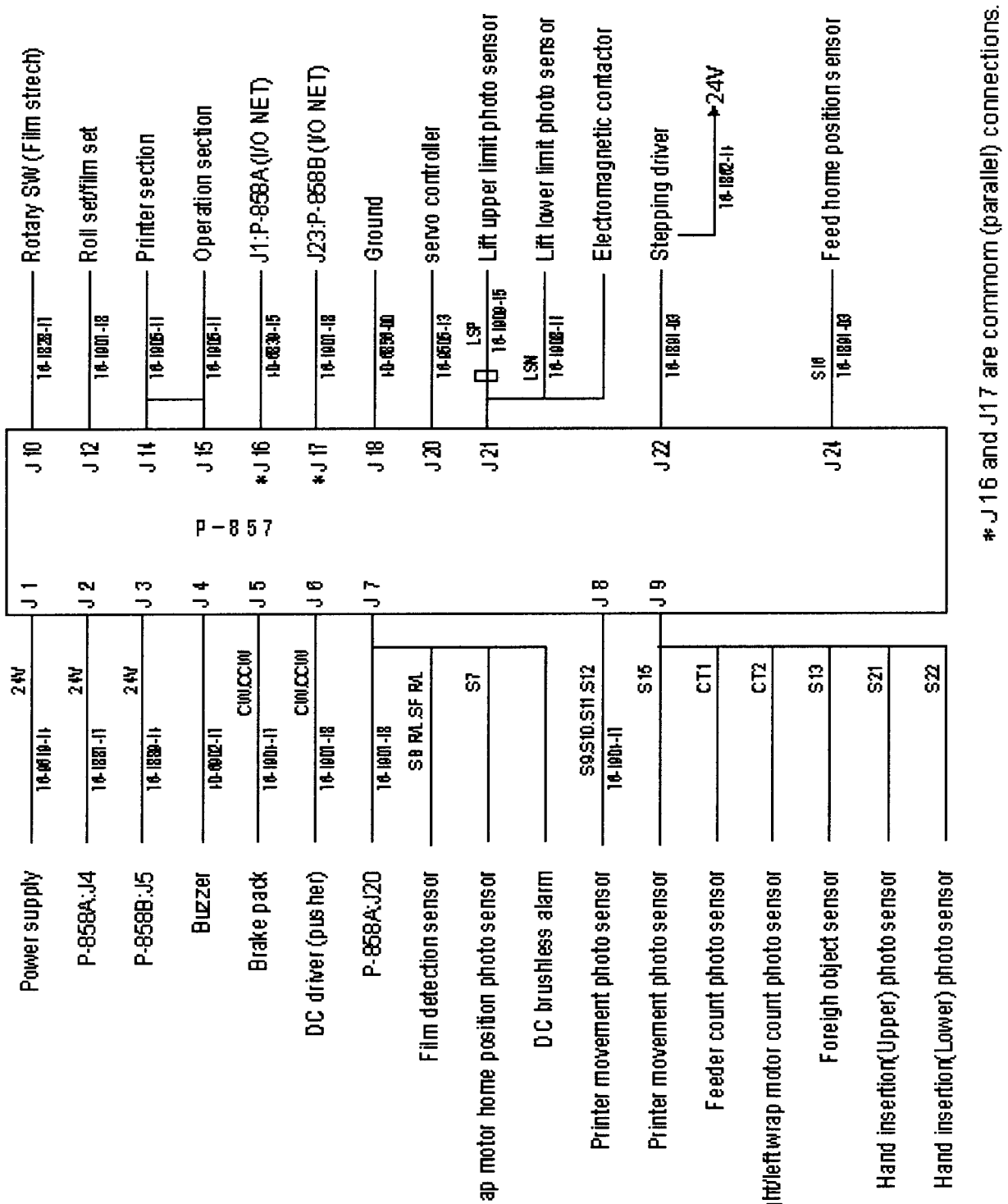
Error No.	Message	Symptom	Check
No.1119-0001 (Right side) No.1119-0002 (Left side)	No wrapping film. (Press emergency stop button.)	Film ended.	Film
No.1119-0001 (Right side) No.1119-0002 (Left side)	No wrapping film. (Press emergency stop button.)	Film reached sensor.	Film detection sensor
No.1119-0001 (Right side) No.1119-0002 (Left side)	No wrapping film. (Press emergency stop button.)	Film feed bad.	Roll brake Roll clutch
No.1119-0001 (Right side) No.1119-0002 (Left side)	No wrapping film. (Press emergency stop button.)	Film feed bad.	Cutter guard gap
No.1119-0001 (Right side) No.1119-0002 (Left side)	No wrapping film. (Press emergency stop button.)	Film feed bad.	Film separation solenoid
No.1119-0001 (Right side) No.1119-0002 (Left side)	No wrapping film. (Press emergency stop button.)	Film feed bad.	Cutter brake
No.1119-0001 (Right side) No.1119-0002 (Left side)	No wrapping film. (Press emergency stop button.)	Film not fed.	Belt (AT5) cut off
No.1119-0001 (Right side) No.1119-0002 (Left side)	No wrapping film. (Press emergency stop button.)	Film not fed.	Belt (DT5)

Error No.	Message	Symptom	Check
No.1127-0001 (Right side) No.1127-0002 (Left side)	Film over. (Press emergency stop button.	Film is not over.	Debris/sensor sensitivity
No.1127-0001 (Right side) No.1127-0002 (Left side)	Film over.	Excessive over and 2-inch film piece at cutter.	Cutter home position photo sensor
No.1127-0001 (Right side) No.1127-0002 (Left side)	Film over.	Excessive over.	Cutter clutch (brake)
No.1127-0001 (Right side) No.1127-0002 (Left side)	Film over.	Excessive over.	Feeder motor brake
No.1127-0001 (Right side) No.1127-0002 (Left side)	Film over.	Excessive over.	Feeder count photo sensor

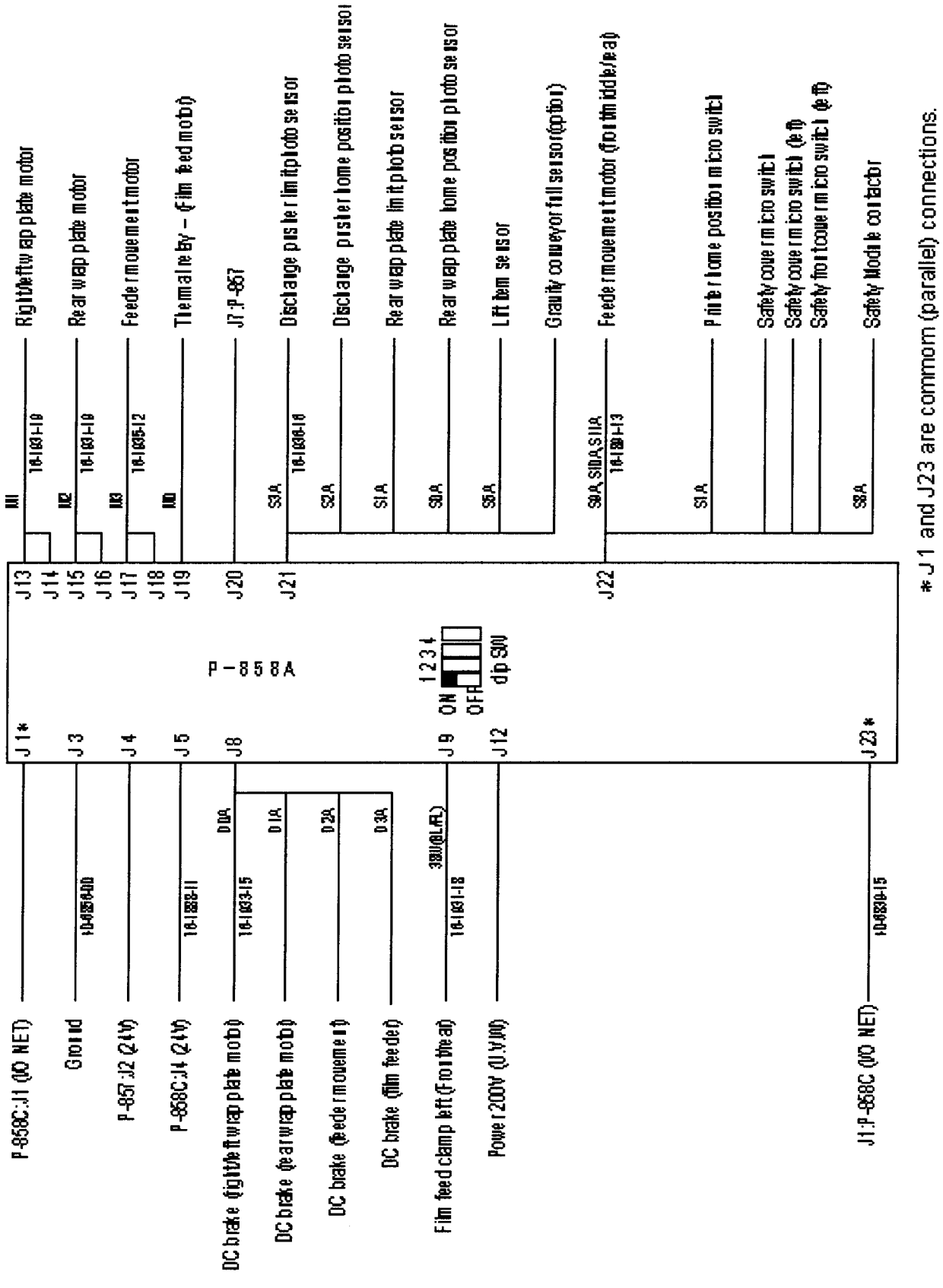
7.16 BOARDS (P-857, P-858A, P-858B, P-858C)



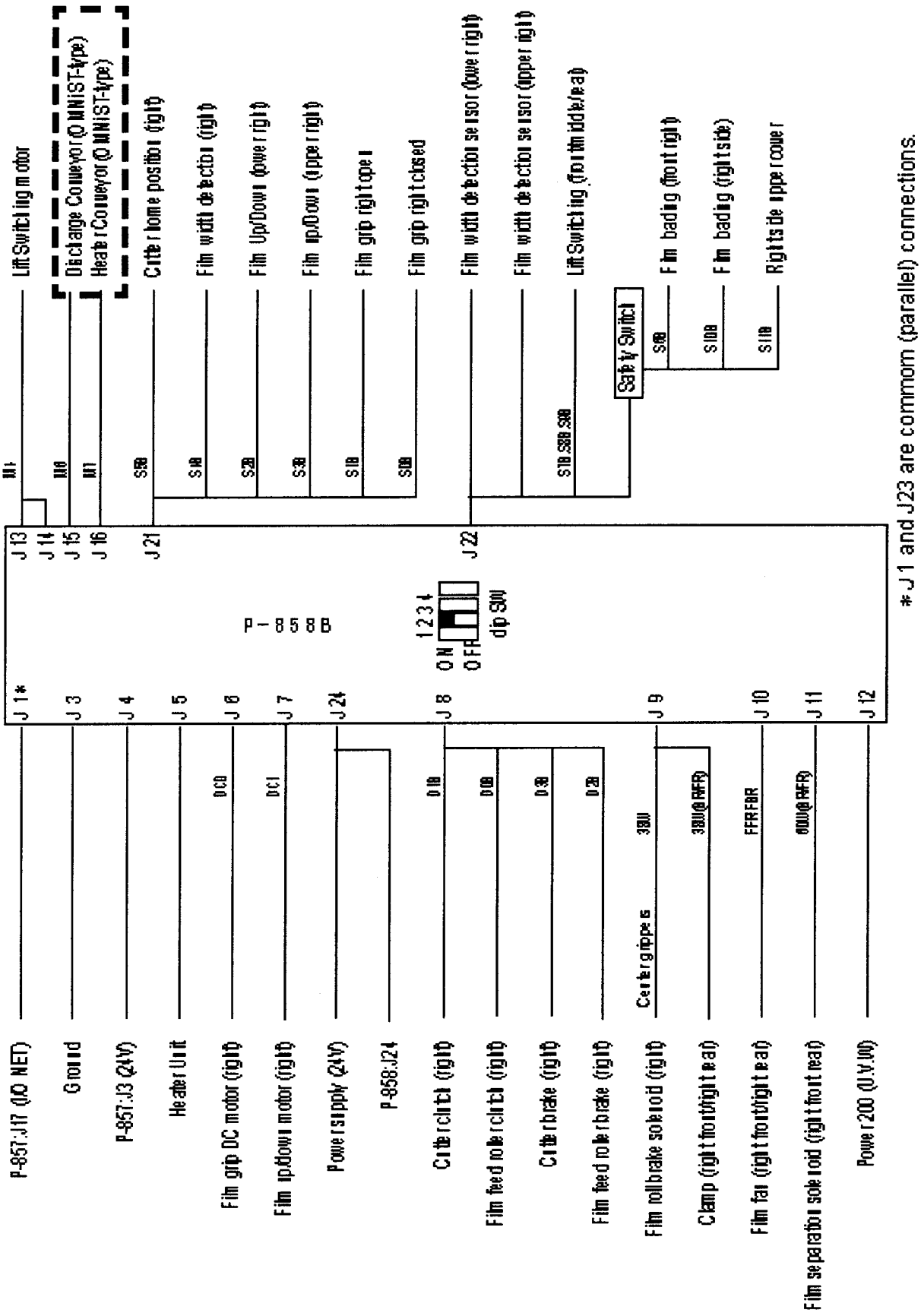
n **P-857**


P-857
J 1
J 2
J 3
J 4
J 5
J 6
J 7
J 8
J 9
J 10
J 12
J 14
J 15
*J 16
*J 17
J 18
J 20
J 21
J 22
J 24
24V
Power supply
P-858A:J4
P-858B:J5
Buzzer
Brake pack
DC driver (pusher)
P-858A:J20
Film detection sensor
Right/left wrap motor home position photo sensor
DC brushless alarm
Printer movement photo sensor
Printer movement photo sensor
Feeder count photo sensor
Right/left wrap motor count photo sensor
Foreigh object sensor
Hand insertion(Upper) photo sensor
Hand insertion(Lower) photo sensor
Rotary SW (Film strech)
Roll set/film set
Printer section
Operation section
J1:P-858A(I/O NET)
J23:P-858B(I/O NET)
Ground
servo controller
Lift upper limit photo sensor
Lift lower limit photo sensor
Electromagnetic contactor
Stepping driver
24V
Feed home position sensor
S7
S9.S10.S11.S12
S15
CT1
CT2
S13
S21
S22
S16
LSP
LSN
*J 16 and J17 are commom (parallel) connections.

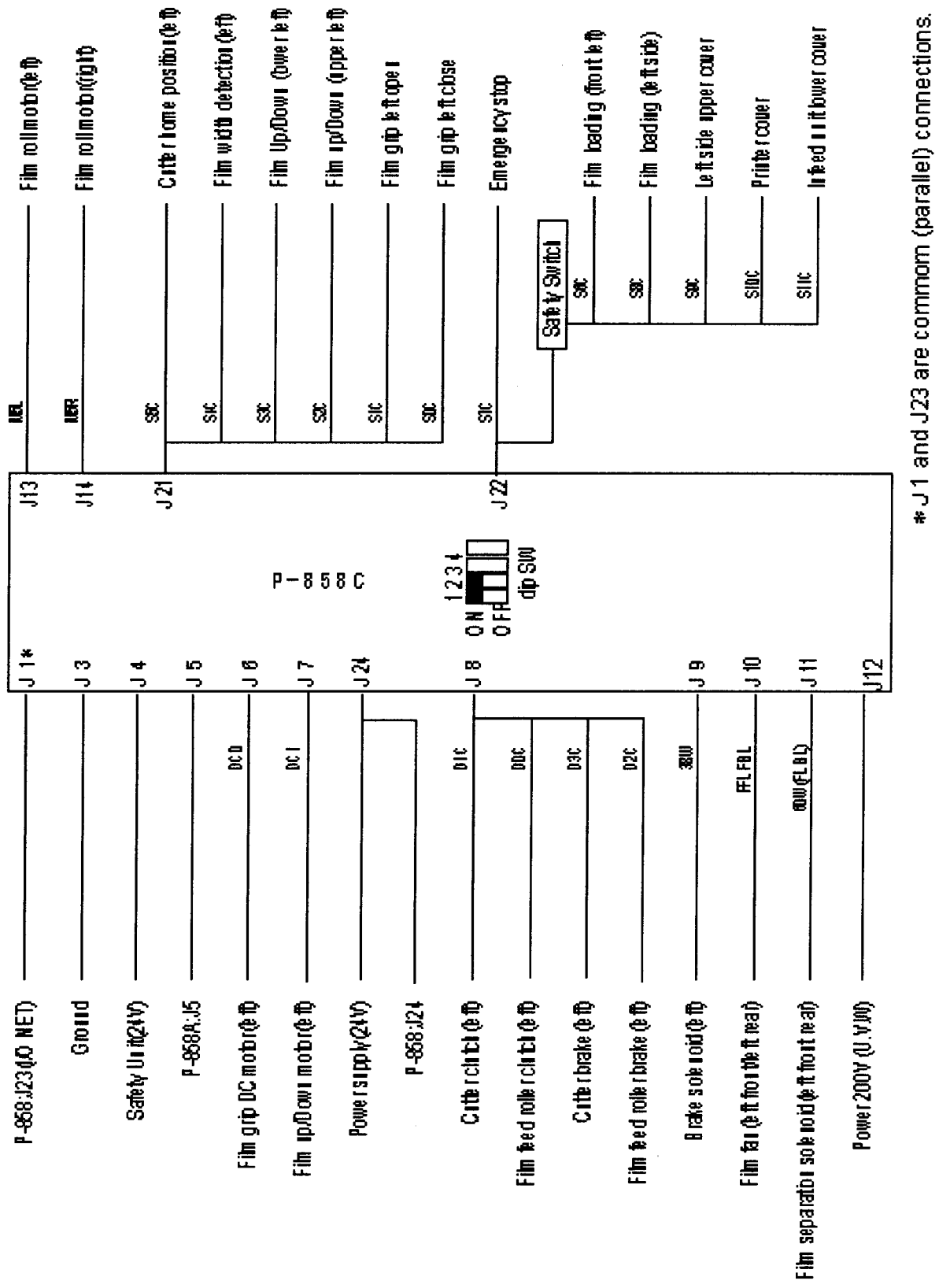
n P-858A


P-858A
J1*
J3
J4
J5
J8
J9
J12
J13
J14
J15
J16
J17
J18
J19
J20
J21
J22
J23*
dip SW
1 2 3 4
ON
OFF
P-858C:J1 (I/O NET)
Ground
P-857:J2 (24V)
P-858C:J4 (24V)
DC brake (right/left wrap plate motor)
DC brake (rear wrap plate motor)
DC brake (feeder movement)
DC brake (film feeder)
Film feed clamp left (From the rear)
Power 200V (U,V,W)
J1:P-858C (I/O NET)
Right/left wrap plate motor
Rear wrap plate motor
Feeder movement motor
Thermal relay – (film feed motor)
J7:P-857
Discharge pusher limit photo sensor
Discharge pusher home position photo sensor
Rear wrap plate limit photo sensor
Rear wrap plate home position photo sensor
Lift item sensor
Gravity conveyor full sensor(option)
Feeder movement motor (from the middle/rear)
Printer home position micro switch
Safety cover micro switch
Safety cover micro switch (left)
Safety front cover micro switch (left)
Safety Module contactor
* J1 and J23 are common (parallel) connections.

n P-858B


P-858B
J 1*
J 3
J 4
J 5
J 6
J 7
J 24
J 8
J 9
J 10
J 11
J 12
J 13
J 14
J 15
J 16
J 21
J 22
dip SW
1 2 3 4
ON
OFF
Lift Switching motor
Discharge Conveyor (OMNiST-type)
Heater Conveyor (OMNiST-type)
Cutter home position (right)
Film width detection (right)
Film Up/Down (power right)
Film up/Down (upper right)
Film grip right open
Film grip right closed
Film width detection sensor (power right)
Film width detection sensor (upper right)
Lift Switching (for middle/rear)
Safety Switch
Film loading (front right)
Film loading (right side)
Right side upper cover
P-857:J17 (LAN NET)
Ground
P-857:J3 (24V)
Heater Unit
Film grip DC motor (right)
Film up/down motor (right)
Power supply (24V)
P-858:J24
Cutter clutch (right)
Film feed roller clutch (right)
Cutter brake (right)
Film feed roller brake (right)
Film roll brake solenoid (right)
Clamp (right front/right rear)
Film fan (right front/right rear)
Film separation solenoid (right front/rear)
Power 200 (0.V.100)
Center gripper
* J1 and J23 are common (parallel) connections.

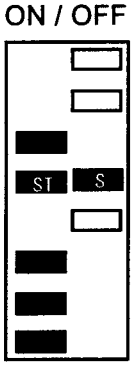
n **P-858C**


P-858C
J 1*
J 3
J 4
J 5
J 6
J 7
J 24
J 8
J 9
J 10
J 11
J12
J13
J14
J21
J22
dip SW
1 2 3 4
ON
OFF
Safety Switch
* J 1 and J23 are commom (parallel) connections.
P-858:J23(O NET)
Ground
Safety Unit(24V)
P-858:J5
Power supply(24V)
P-858:J24
Power200V (U.V.W)
Film roll motor(left)
Film roll motor(right)
Cutter home position(left)
Film width detection(left)
Film Up/Down (lower left)
Film up/Down (upper left)
Film grip left open
Film grip left close
Emergency stop
Film loading (front left)
Film loading (left side)
Left side upper cover
Printer cover
Infeed unit lower cover
Film grip DC motor(left)
Film up/Down motor(left)
Cutter clutch(left)
Film feed roller clutch(left)
Cutter brake(left)
Film feed roller brake(left)
Brake solenoid(left)
Film fan(left front left rear)
Film separation solenoid(left front rear)

n Board (P-857, P-858A, P-858B, P-858C) Error Messages

Error No.	Message	Symptom	Check
No.1122-0000	Wrapper control board error	High pitch tone	P-857
No.1122-0021	Wrapper control board error	High pitch tone	DIP switch connection between P-857 and P-858A
No.1122-0022	Wrapper control board error	High pitch tone	DIP switch connection between P-857 and P-858B
No.1122-0023	Wrapper control board error	High pitch tone	DIP switch connection between P-858A and P-858C
No.1122-0031	Wrapper control board error	High pitch tone	DIP switch (board)
No.1122-0032	Wrapper control board error	High pitch tone	DIP switch (board)
No.1122-0033	Wrapper control board error	High pitch tone	DIP switch (board)
No.1122-0101	Wrapper control board error	High pitch tone Fuse	Connection between amp and P-857 F17 / F18
No.1122-0102	Wrapper control board error	High pitch tone	Connection between amp and P-857
No.1122-0200	Wrapper control board error	High pitch tone	P-857 (I2NET)
No.1122-other	Wrapper control board error	High pitch tone	Noise

n DIP switch (P-857)

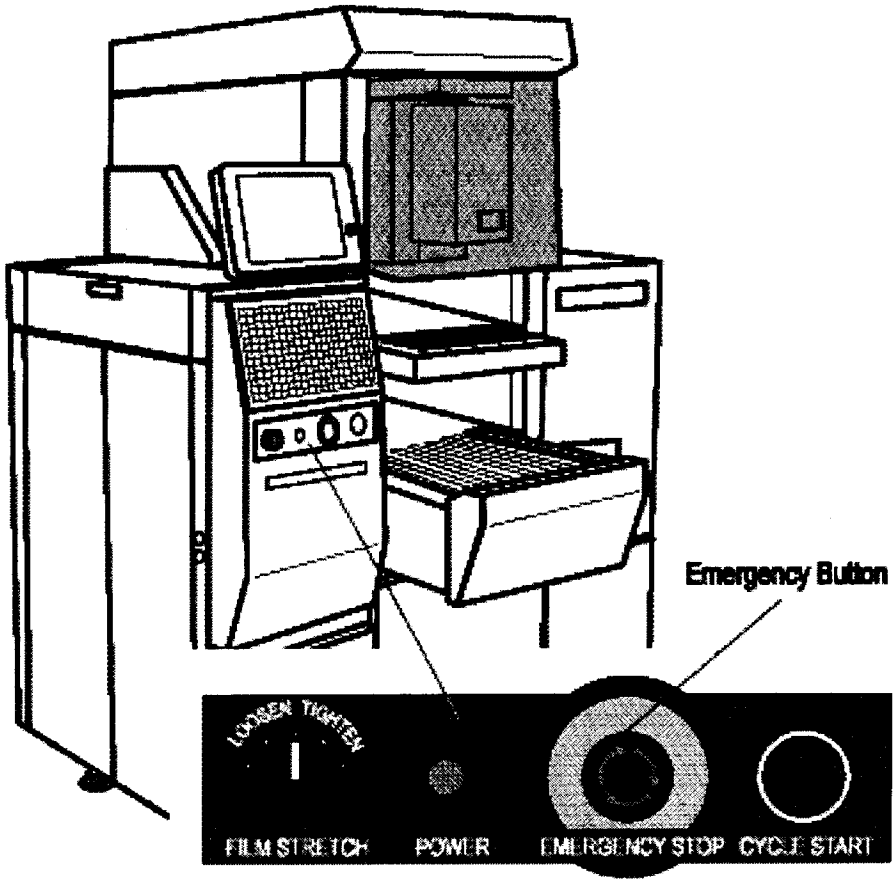


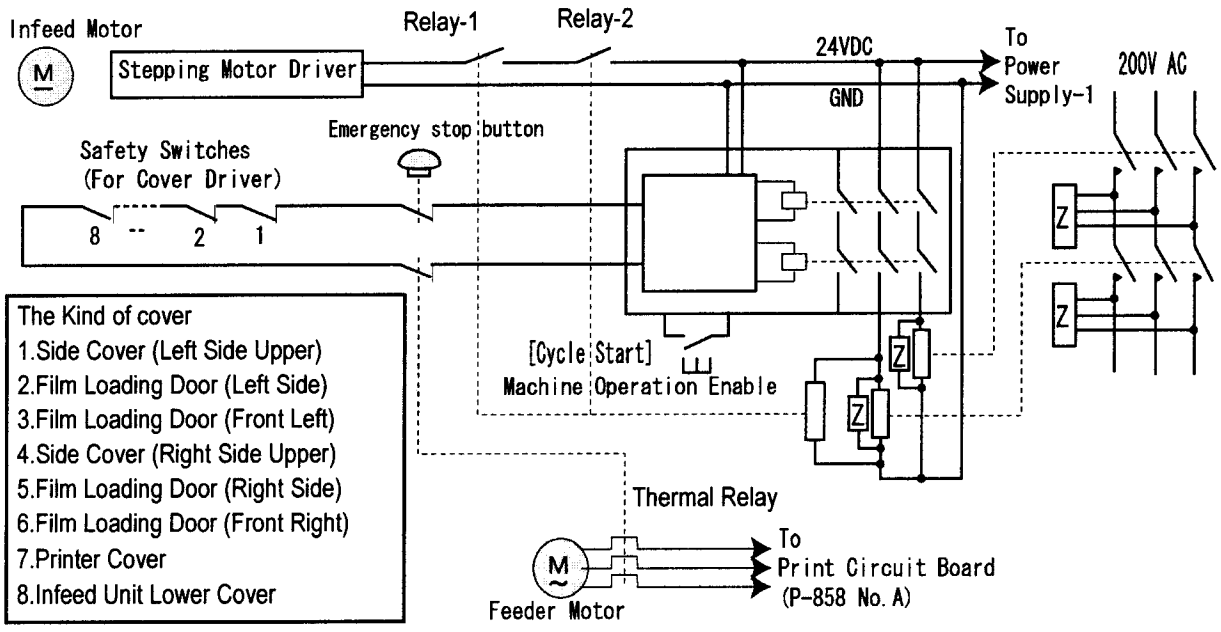
8: Film yes/no sensor invalid
7: Not used
6: Hand insertion (ON = Auto discharge enabled)
5: Discharge option (S type = OFF . ST type = ON)
4: Film load on lower right position option
3: Film automatic switching option(L/R)
2: Lift automatic awitching option(Large/Small)
1: Automatic labeling option

Error No.	Message	Symptom	Check
No.1153-0000	Wrapper control board is not receiving power	Scale only operation board. No wrpper movement.	F21, F22, F23 (rear panel) No power to P-858A.

* If error occurs after chnaging film belt or P-858* board - cross connected J9, J10, J11 at P-858 or connectors at feeder.
  ⇒ Check fuses on P-858*
  ⇒ If OK, then damaged board.

7.17 EMERGENCY STOP BUTTON

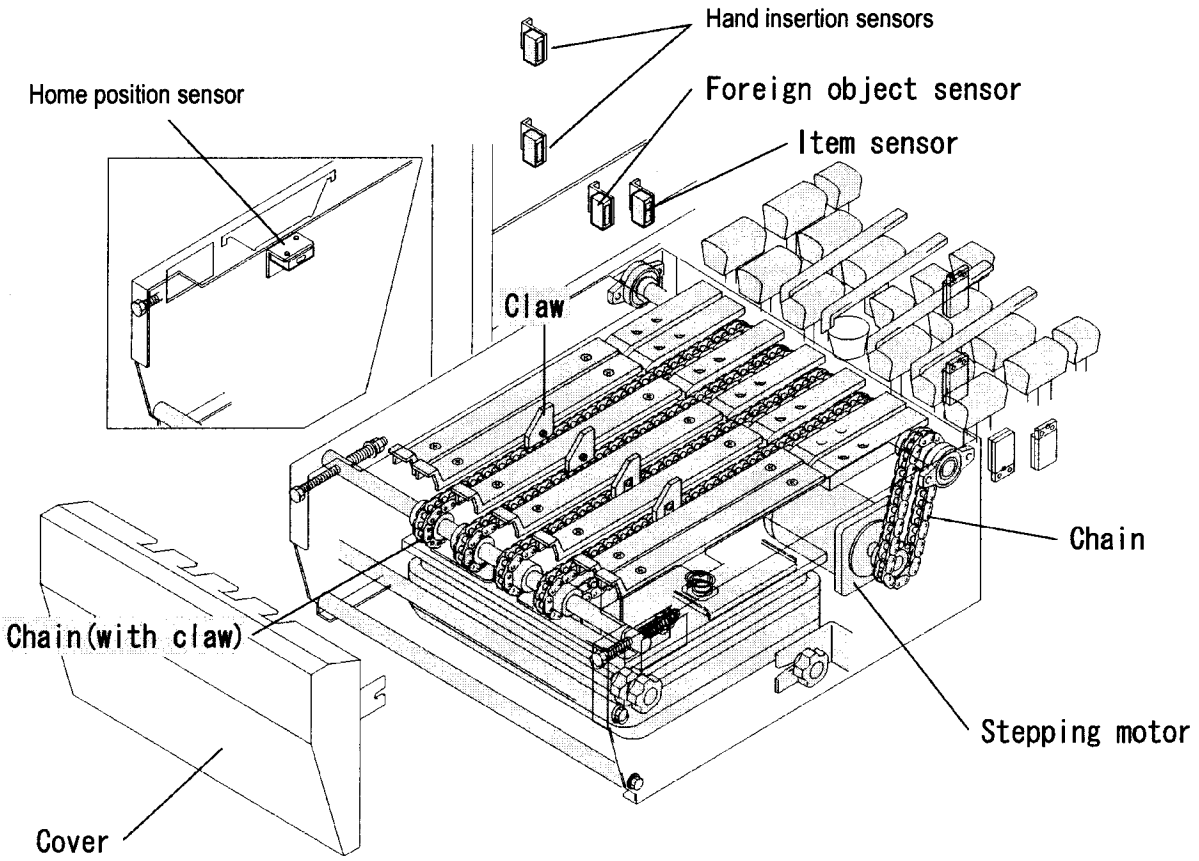


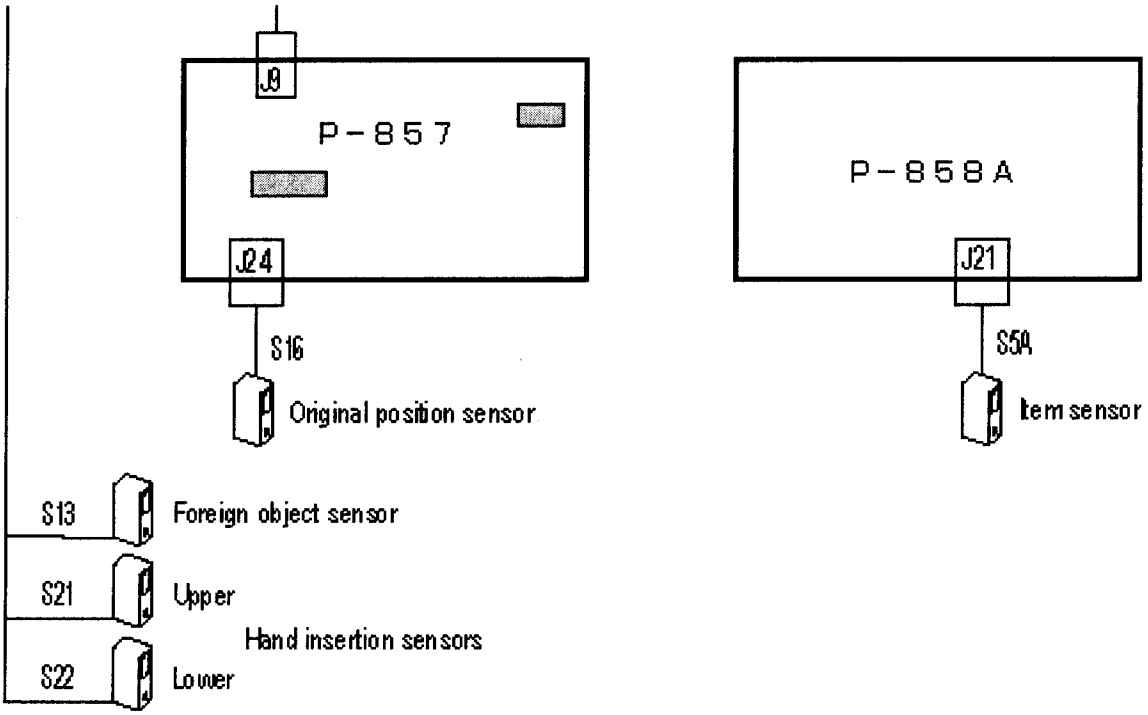


n Emergency Stop Button Error Messages

Error No.	Message	Symptom	Check
No.1123-0000	Emergency stop button was pressed. Remove commodity on measuring instrument and lift, film and label.	Emergency stop button is pressed during operation.	Check if emergency stop button is released. Board connection at emergency stop button terminal Y1.
No.1124-0000	Emergency stop button is pressed. Backs to the previous screen after emergency stop button is released.	Error message appeared at start.	Check if emergency stop button is pressed.

7.18 FOREIGN OBJECT / ITEM SENSOR



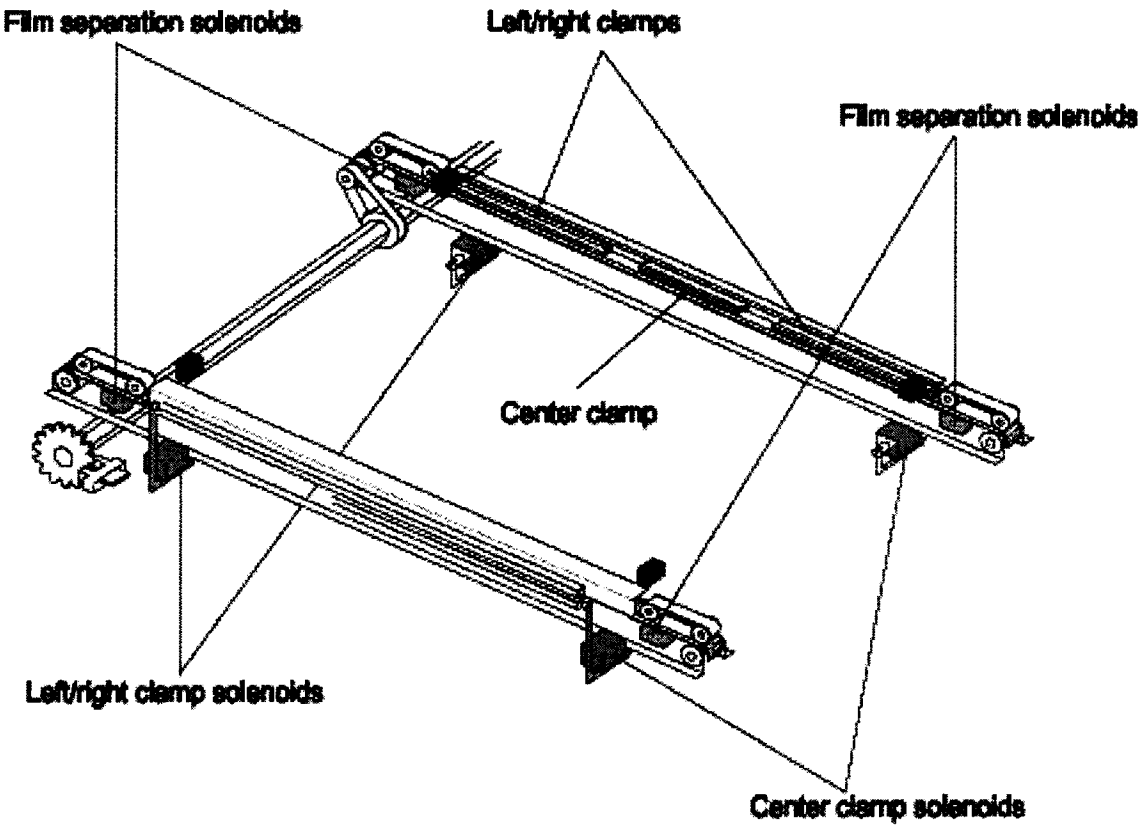


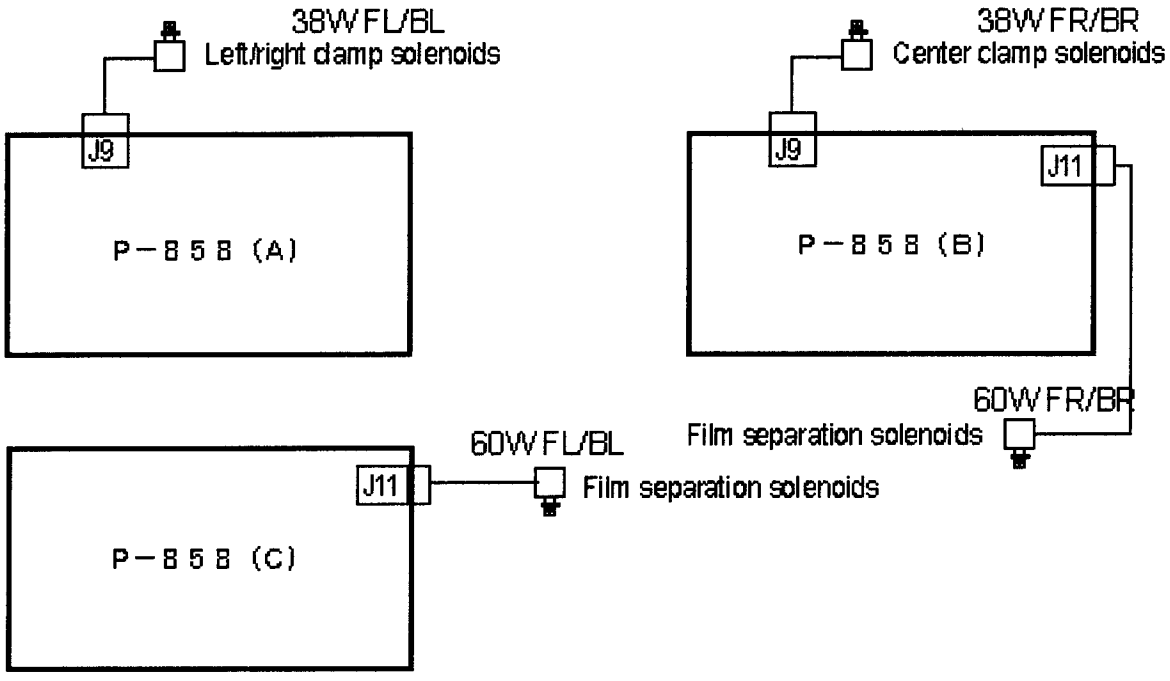
n Foreign Object / Item Sensor Error Messages

Error No.	Message	Symptom	Check
No.1128-0000	Strange object at feed and wrap.	When lift is moving.	Check if an excessive amount of items is detected on the tray.
No.1128-0000	Strange object at feed and wrap.	When lift is moving.	Strange object detection sensor

Error No.	Message	Symptom	Check
No.1133-0000	No item.	Tray cannot be fed.	Strange object detection sensor
No.1133-0000	No item.	Fed about 10 mm.	Feed origin sensor
No.1133-0000	No item.	Remove the tray on halfway.	Removal

7.19 SOLENOID

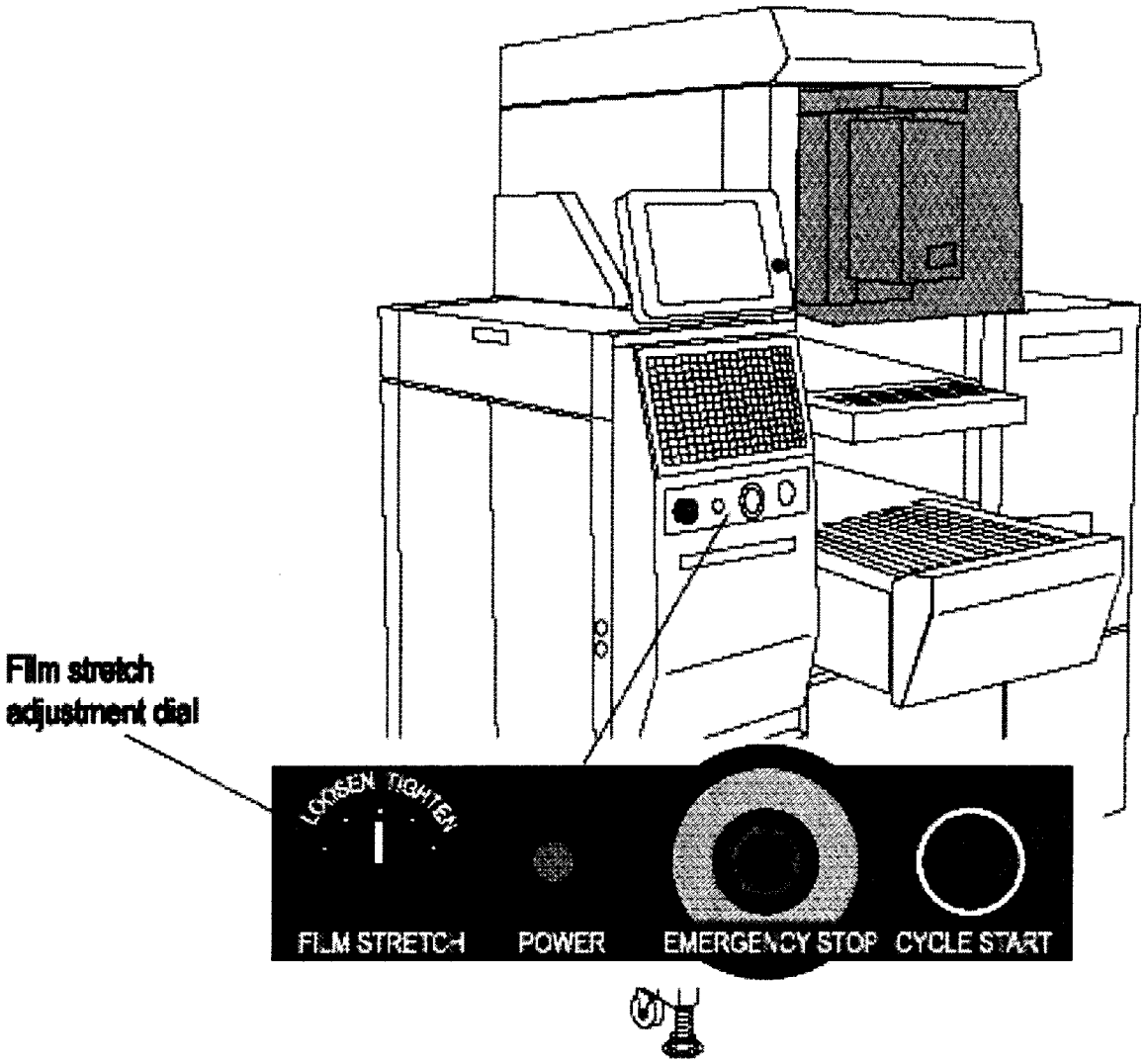


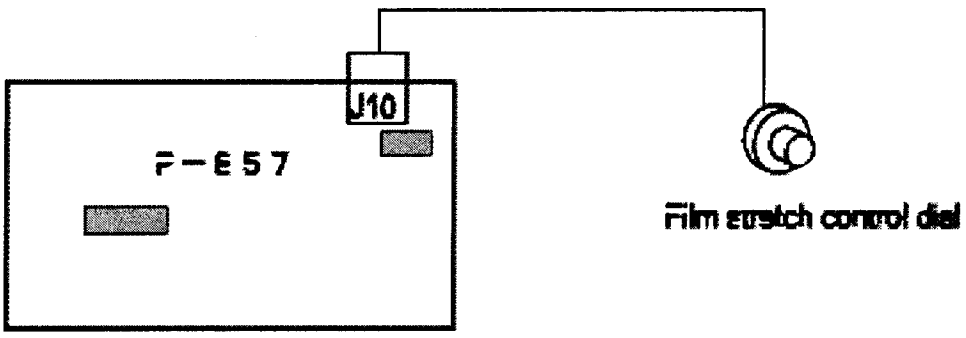


SOLENOID ERROR MESSAGES. (NO MESSAGE)

Error No.	Message	Symptom	Check
No.1129-0000	Solenoid action error	Wrapping condition The back of the film is not folded in.	Center clamp solenoid
No.1129-0000	Solenoid action error	Wrapping condition Both ends of the film are not properly tensioned.	Left/Right clamp solenoid
No.1129-0000	Solenoid action error	Film does not feed.	Film separation solenoid

7.20 FILM TENSION CONTROL DIAL

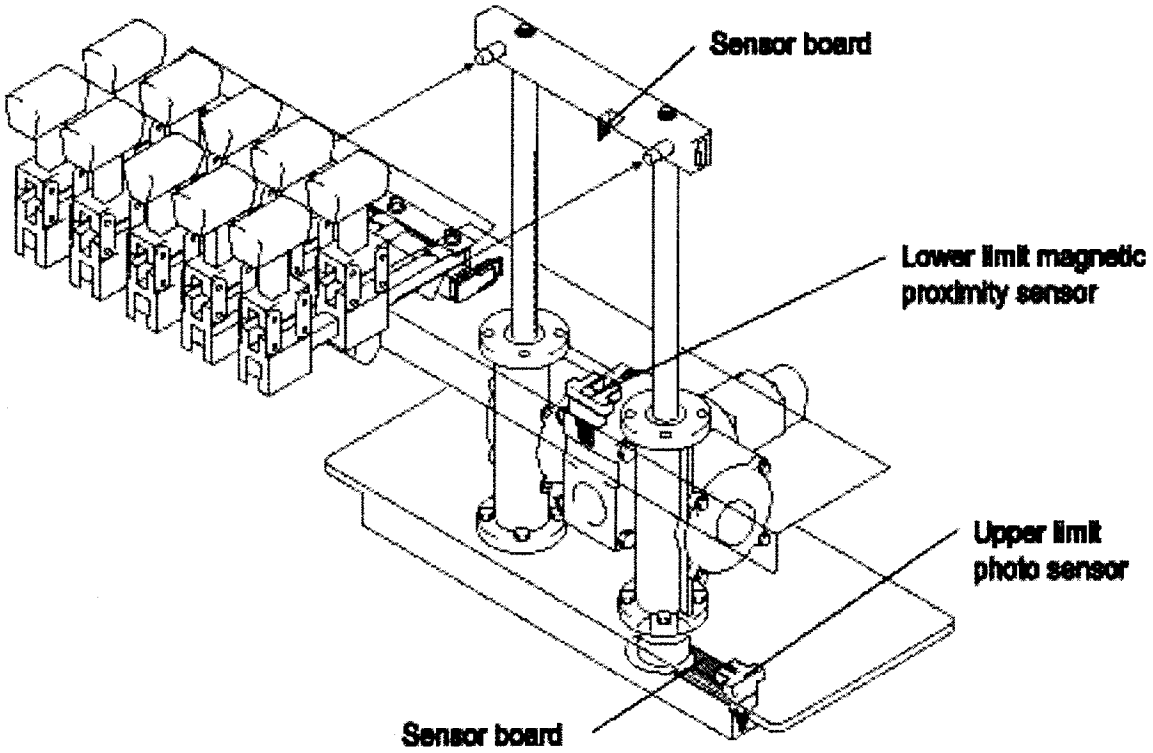


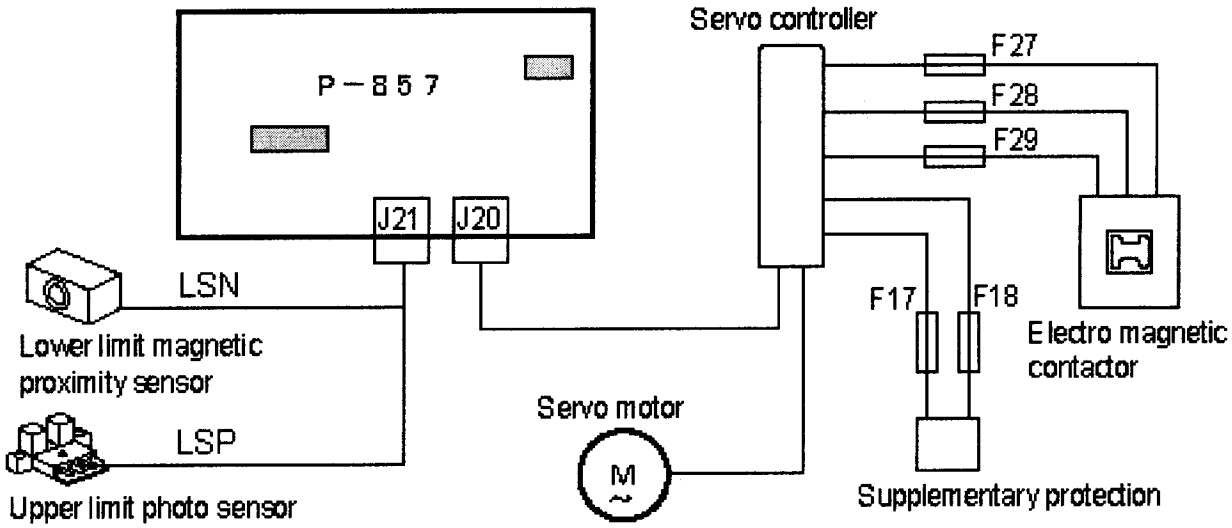


FILM TENSION CONTROL DIAL ERROR MESSAGES

Error No.	Message	Symptom	Check
No.1132-0000	The dial switch setting is between graduation.	Beep sound does not emit when turning the dial.	Film stretch control dial

7.21 LIFT


Sensor board
Lower limit magnetic proximity sensor
Upper limit photo sensor
Sensor board


P－857
J21
J20
LSN
Lower limit magnetic proximity sensor
LSP
Upper limit photo sensor
Servo controller
F27
F28
F29
F17
F18
Electro magnetic contactor
Servo motor
M
Supplementary protection

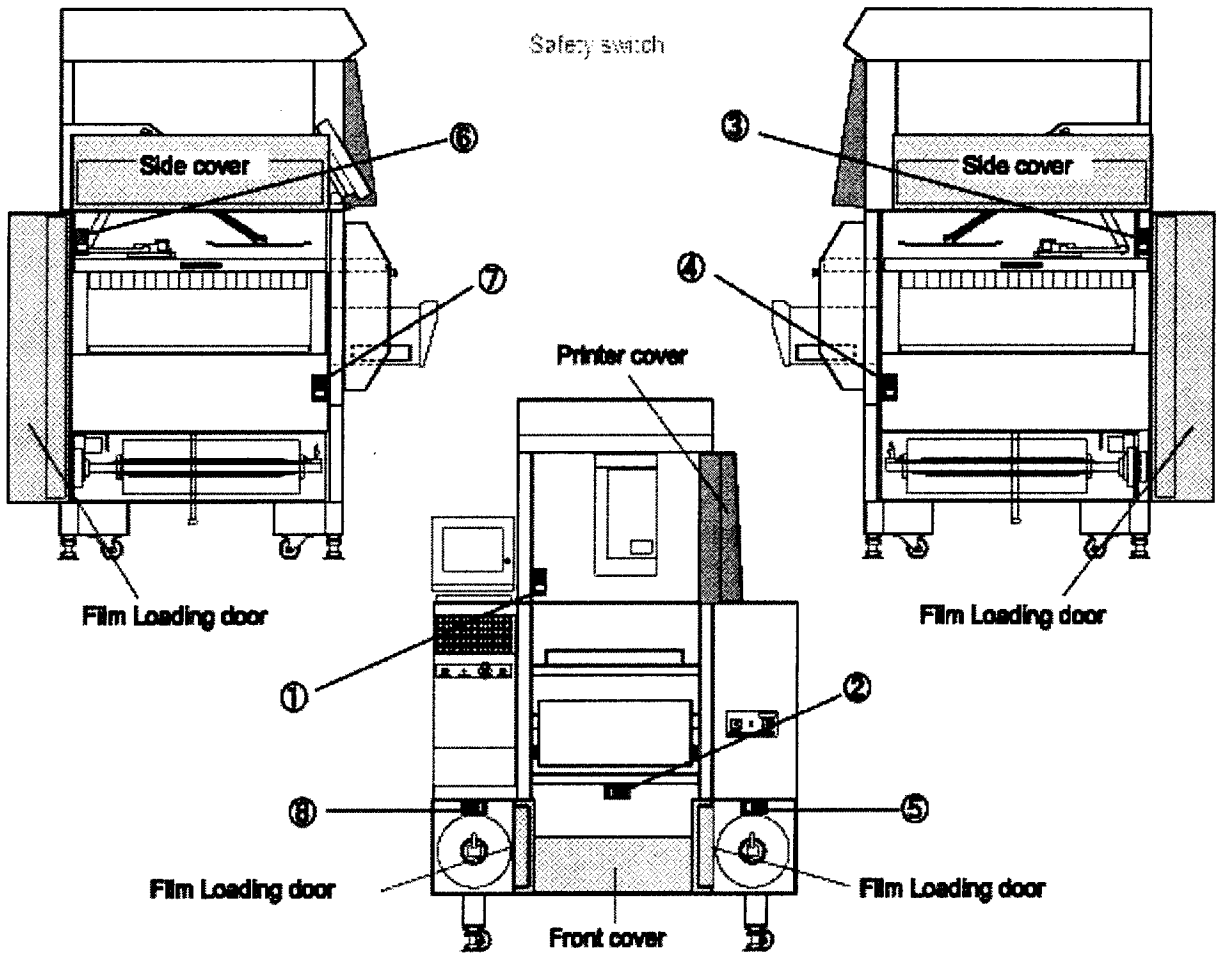
LIFT ERROR MESSAGES.

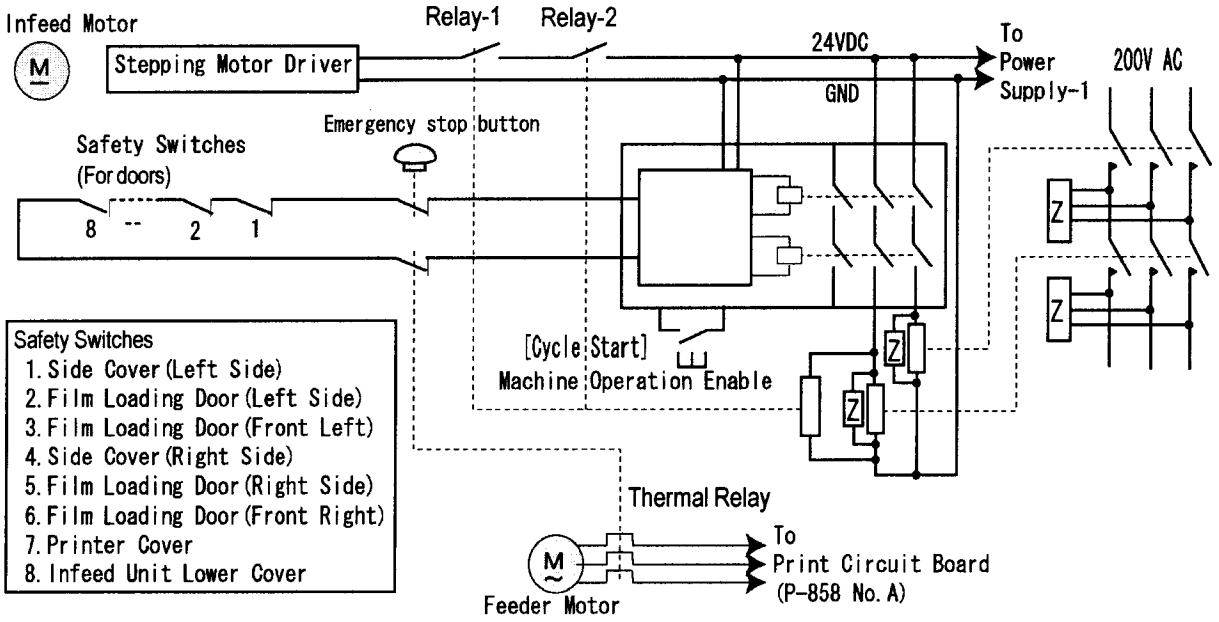
Error No.	Message	Phenomenon	Check
No.1103-0000	Wrapper action error. (Lift motor)	Lift moves upward. [Recovers after emergency stop button release.]	Lower limit Proximity sensor (dirt) (damage)
No.1136-0000	Lift upper limit position error.	Lift moves upward again. [Recovers after emergency stop button release.]	Lower limit Proximity sensor (dirt) (damage)
No.1116-0000	Wrapper servo controller error.	Error message changes to another one.	Lower limit Proximity sensor (dirt)
No.1103-0000	Wrapper action error. (Lift motor)	Lift hits on feeder and left/right change motor.	Feeder, mid-point, wrapping plate, brake
No.1103-0000	Wrapper action error. (Lift motor)	Lift does not move. [Recovers after emergency stop button release.]	Lower limit Proximity sensor (dirt) (damage)
No.1136-0000	Lift upper dead point error.	Error message changes to another one. [Recovers after emergency stop button release.]	Upper limit photo sensor (dirt) (damage)
No.1116-0097	Wrapper servo controller error.	Lift moves downward.	Upper limit photo sensor

Error No.	Message	Phenomenon	Check
No.1137-0000	Foreign object under the lift.	Lift moves downward and stops.	Lower limit Proximity sensor
No.1137-0002	Foreign object under the lift.		Intervention of products.
No.1137-0003	Foreign object under the lift.	Lift does not move.	Item sensor ** Check stop position of infeed conveyor pusher tabs.
No.1116-0070	Wrapper servo controller error.		Connection (between amplifier and motor) Servo amplifier Servomotor
No.1122-0101	Wrapper control board malfunction	Beep tone	Connection (between P-857 and amplifier) Lower limit Proximity sensor P-857

* See No. 1116 for servo controller error.
** See section 7.18 for Item sensor location.

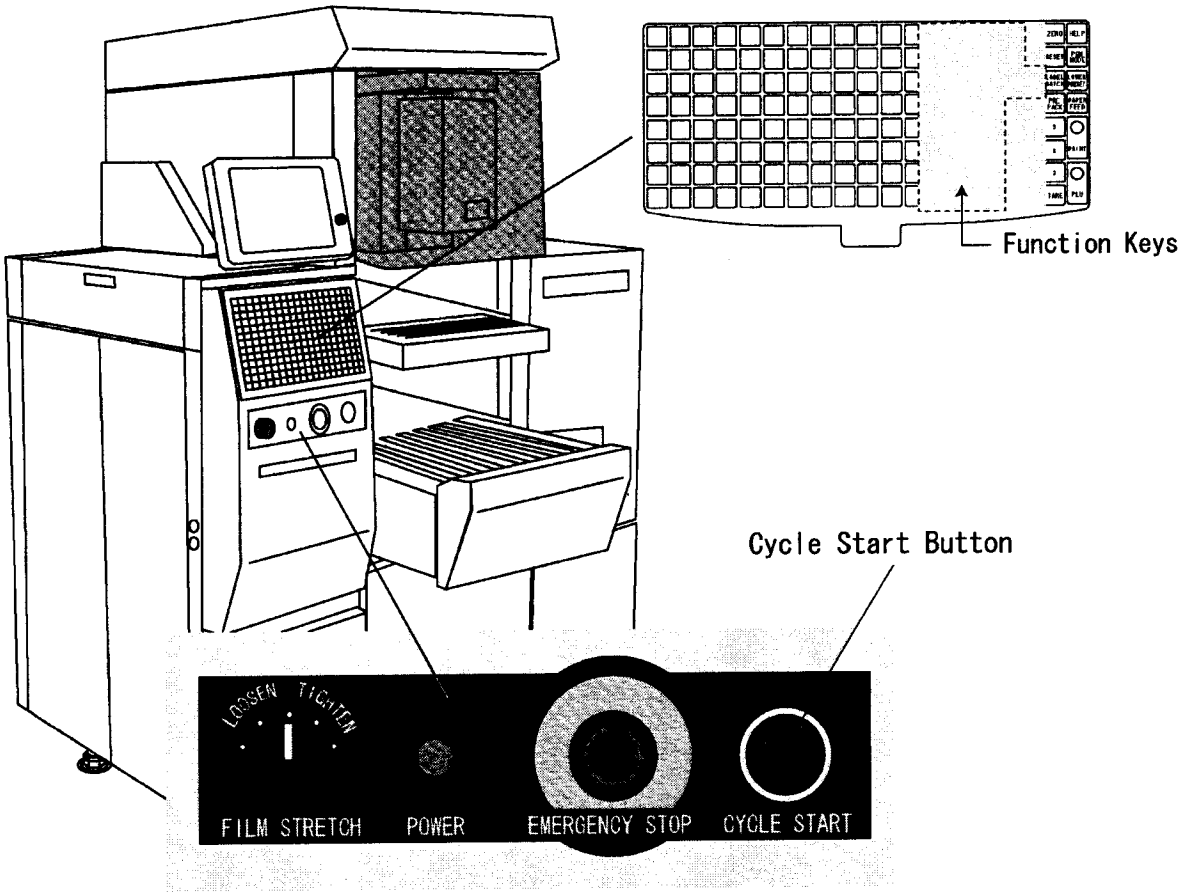
7.22 SAFETY SWITCH





Error No.	Message	Phenomenon	Check
No.1150-0001	Door open error	Door open during operation	Printer.
No.1150-0002	Door open error	Door open during operation	Under-conveyor.
No.1150-0003	Door open error	Door open during operation	Upper-Right side.
No.1150-0004	Door open error	Door open during operation	Right side.
No.1150-0005	Door open error	Door open during operation	Front-Right side.
No.1150-0006	Door open error	Door open during operation	Upper-Left side.
No.1150-0007	Door open error	Door open during operation	Left side.
No.1150-0008	Door open error	Door open during operation	Front-Left side.

Error No.	Message	Phenomenon	Check
No.1151-0000	Enable Switch error	Door open before operation	1150-0001 ~ 1150-0008
No.1151-0000	Enable Switch error	Forgot Cycle Start Switch	Enable Switch
No.1151-0000			Y2 on E, stop button bad contact. Faulty cycle start button. TK-ON contactor disengaged.

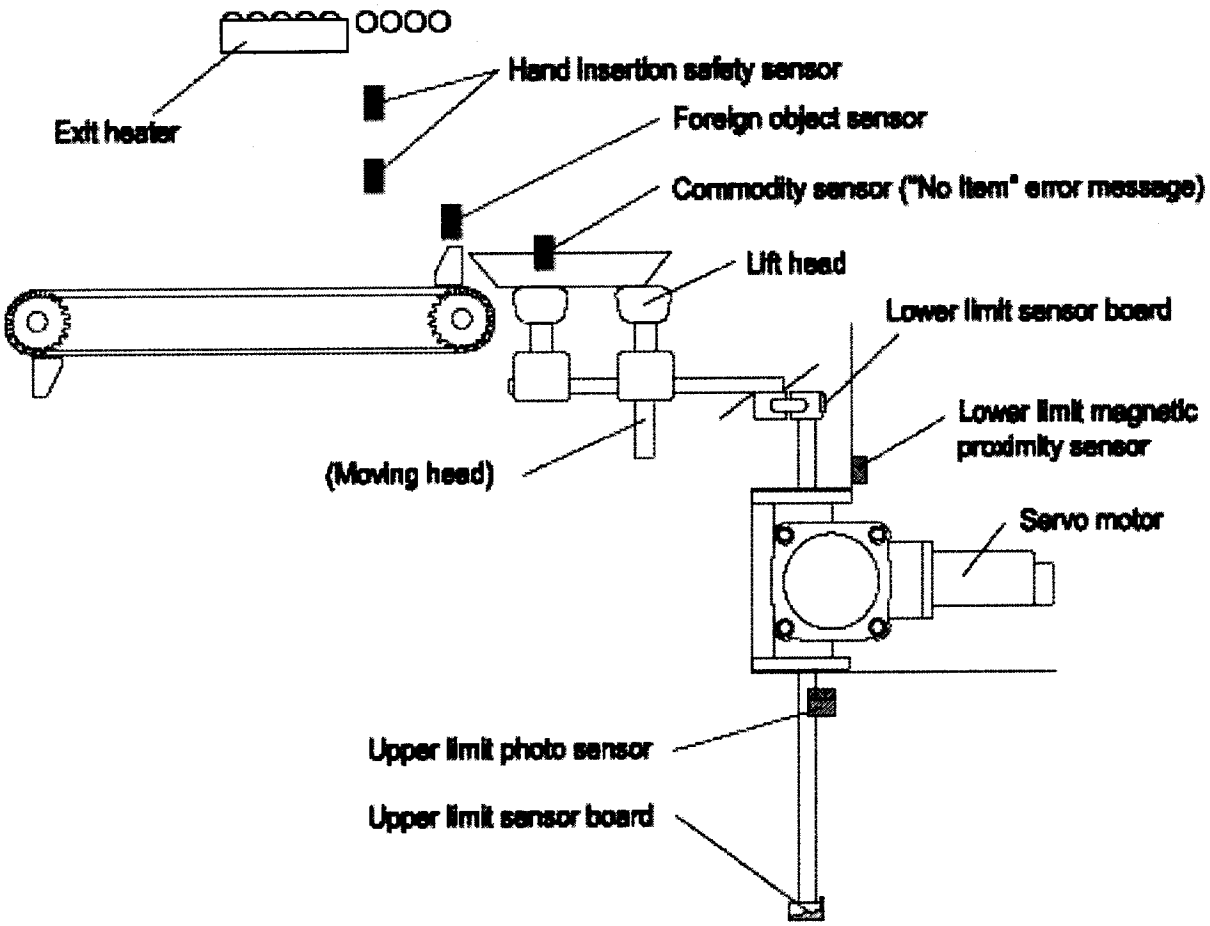


7.23 LIFT DRIVE

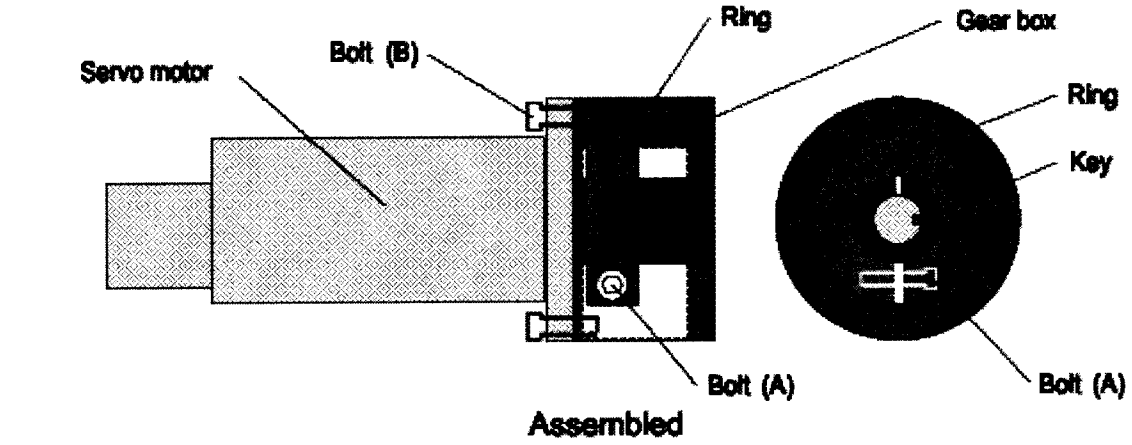
n Operation

1. The tray transported onto the lift is checked to determine if it is being fed properly by the commodity sensor. The tray is lifted by pressing the **[PLU]** key or weight of next tray is stable.
2. After the lift reaches the top position, it returns back to its original position .
3. The lift drive has a lift switch function. By selecting large or small lift for left and right films (i.e. right: 15-inch; left: 20-inch), on the tray program screen, the lift moves up and down (original position – lower position) according to the lift switch unit operation.
4. The electric circuit controls the servo motor of the P-857 servo controller.

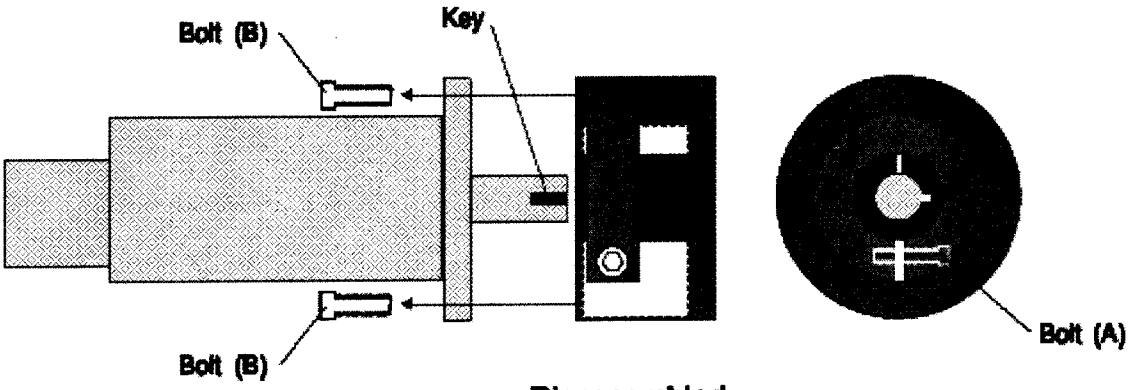
n Configuration Diagram



n Servo motor



Assembled



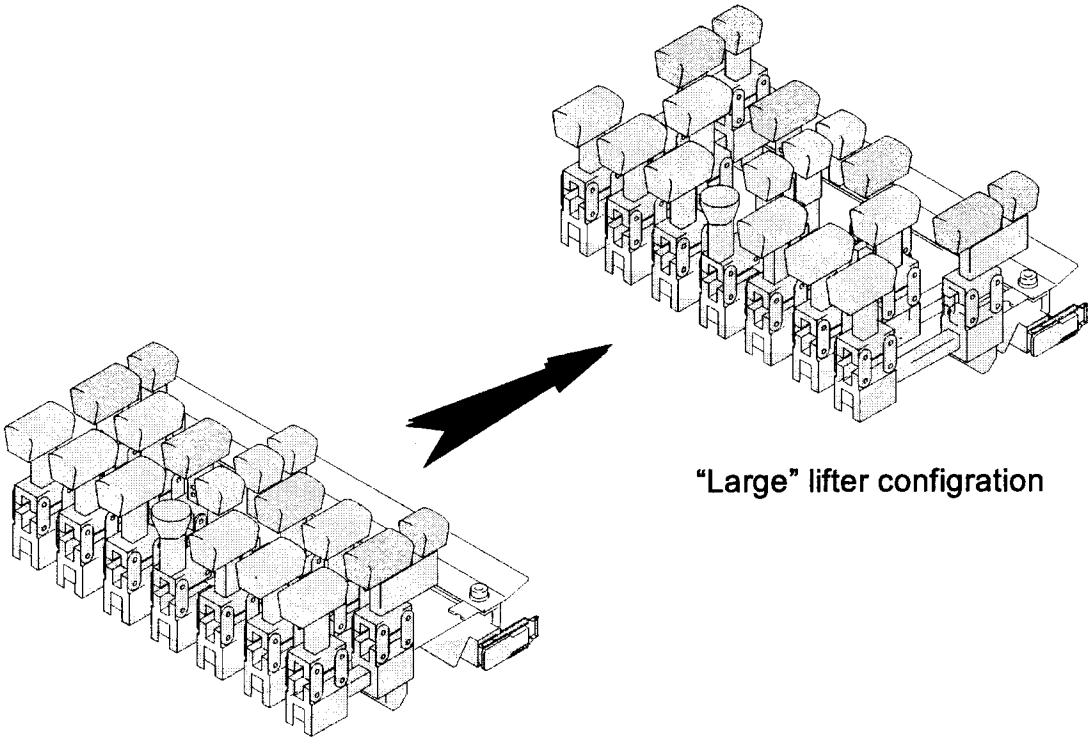
Disassembled

7.24 LIFT HEAD

n Operation

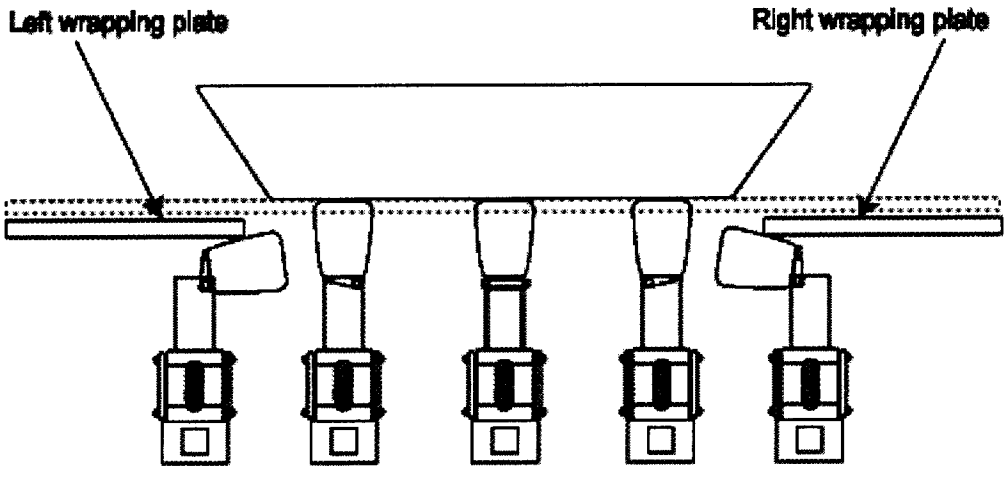
1. When the tray is wrapped (rear and left/right) the lift heads incline with the wrapping plates as they move underneath the tray.
2. The heads then spring back to their original positions.
3. There are 15 lift heads, out of which 5 heads slide depending on the tray size selection (large/small).

n Configuration and Block Diagram

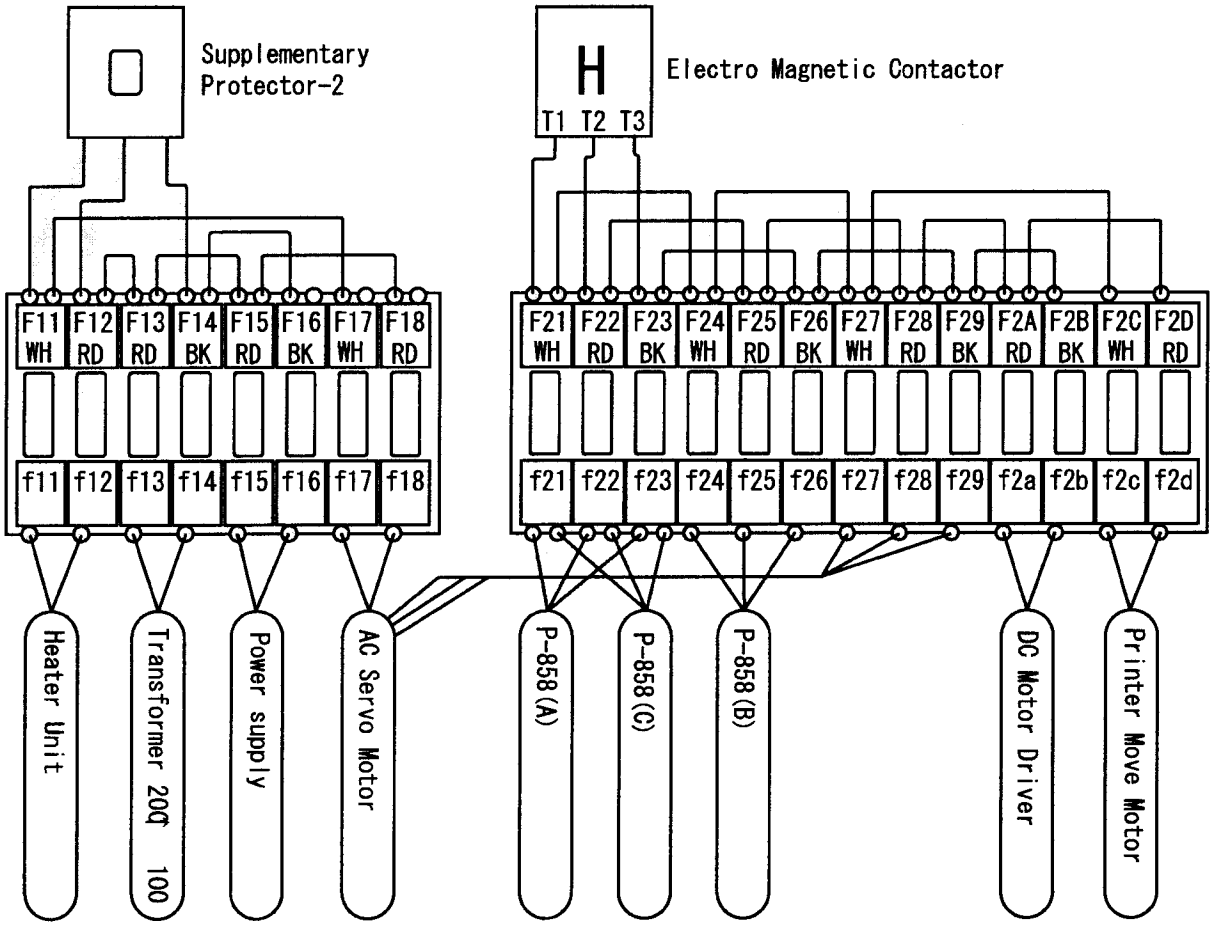


"Large" lifter configration

"Small" lifter configration



7.25 FUSE MAX. CAPACITY



No.	Rating
F11	250V / 4A
F12	250V / 4A
F13	250V / 2A
F14	250V / 2A
F15	250V / 3A
F16	250V / 3A
F17	250V / 3A
F18	250V / 3A

No.	Rating
F21	250V / 2A slow / 4A standard
F22	250V / 2A slow / 4A standard
F23	250V / 2A slow / 4A standard
F24	250V / 1A
F25	250V / 1A
F26	250V /1A
F27	250V / 4A
F28	250V / 4A
F29	250V / 4A
F2A	250V / 3A
F2B	250V / 3A
F2C	250V / 1.5A
F2D	250V / 1.5A

■ OMNi-3000S/ST Fuse list and error codes

Rear Fuse Panel

Number	Rating	Type	Protection for:	Error Number	Error Name	Symptom
F11, F12	250V, 4A	3AG	Exit Heater	None	None	No heat at package seal heater. No lamp on temp control dial.
F13, F14	250V, 2A	"	Transformer	"	"	Wrapper is dead. Single beep from wrapper at power up. Lamp on temp control dial is lit.
F15, F16	250V, 3A	"	Power Supply	1101-0000	"Wrapper is not connected"	No 24VDC from wrapper power supply. No red status LEDs on sensors. Cannot clear error message.
F17, F18	"	"	AC Servo Motor	1122-0101	"Wrapper control board malfunction"	Emergency Stop button does not clear message. Too many beeps (error warning) from wrapper at power up.
F21, F22, F23	250V, 1.5A*	"	P-858A and P-858C	None+ 1153-0000	None+ Wrapper control board error	Package does not infeed. Can recall one PLU but not anoter. No Roll Set, Film Feed, Return, or printer move (Left to Right).
F24, F25	250V, 1A	"	P-858B	1112-0000	"Wrapper action error - lift change motor"	Package infeeds, rear film belt moves, printer moves, then error message. Can Roll Set and Film Feed both sides.
F26	"	"	"	None	None	No discharge conveyor operation.
F27, F28, F29	250V, 4A	"	AC Servo Motor	"	"	No misoperation.
F2A, F2B	250V, 3A	"	Discharge Pusher Motor	1106-0000	"Wrapper action error - eject pusher motor"	Partial wrap cycle - stops at discharge pusher.
F2C, F2D	250V, 1.5A	"	Printer Move Motor (L/R)	1113-0000	"Wrapper action error - labeling machine move motor"	Printer unit does not move Left to Right. Press Move key - error message displayed after eight seconds.

* Ishida has authorized an increase in fuse capacity and type. Upgrade to 2A, 250, time delay fuses (MDL/3AG type).

+ Based on firmware revision, may cause Error 1123-0000, "Emergency Stop button is pressed".

Film Roll Heater* Control Panel (Below Rear Fuse Panel)

Number	Rating	Type	Protection for:	Error Number	Error Name	Symptom
F1, F2	250V, 8A	3AG	Film Roll Heater	None	None	No heat in film roll area.

* The film roll heater is an option on the OMNi-3000 auto wrapper.

P-857 Wrapper CPU Board (Left side)

Number	Rating	Type	Protection for:	Error Number	Error Name	Symptom
F1	3A	5x20	24 volts DC	1101-0000	"Wrapper is not connected"	No 24VDC from wrapper power supply. No red status LEDs on sensors. Connot clear error massage.
F2	1A	"	5 volts DC	"	"	"

P-858 "A" Wrapper control board (Left side)

Number	Rating	Type	Protection for:	Error Number	Error Name	Symptom
F1	7A	5x20	24 volts DC	1122-0021	"Wrapper control board malfunction"	Emergency Stop button clears error message, but it returns immediately.
F2	"	"	5 volts DC	"	"	"
F3, F4	250V, 5A	5x20	200 volts AC	None 1153-0000	None	Package does not infeed. Error beeps when package is placed on infeed. Can recall one PLU but not another. No Roll Set, Film Feed, Return, or printer move (Left to Right).

P-858 "B" Wrapper control board (Right side)

Number	Rating	Type	Protection for:	Error Number	Error Name	Symptom
F1	7A	5x20	24 volts DC	1122-0022	"Wrapper control board malfunction"	Emergency Stop button clears error message, but it returns immediately. Error beeps at power up.
F2	1A	"	5 volts DC	"	"	"
F3	250V, 5A	"	200 volts AC	1112-0000	"Wrapper control board malfunction"	Package infeed, rear film belt moves, then error message. Can Roll Set and Film Feed both sides.
F4	"	"	"	None	None	No discharge conveyor operation (OMNi-ST)

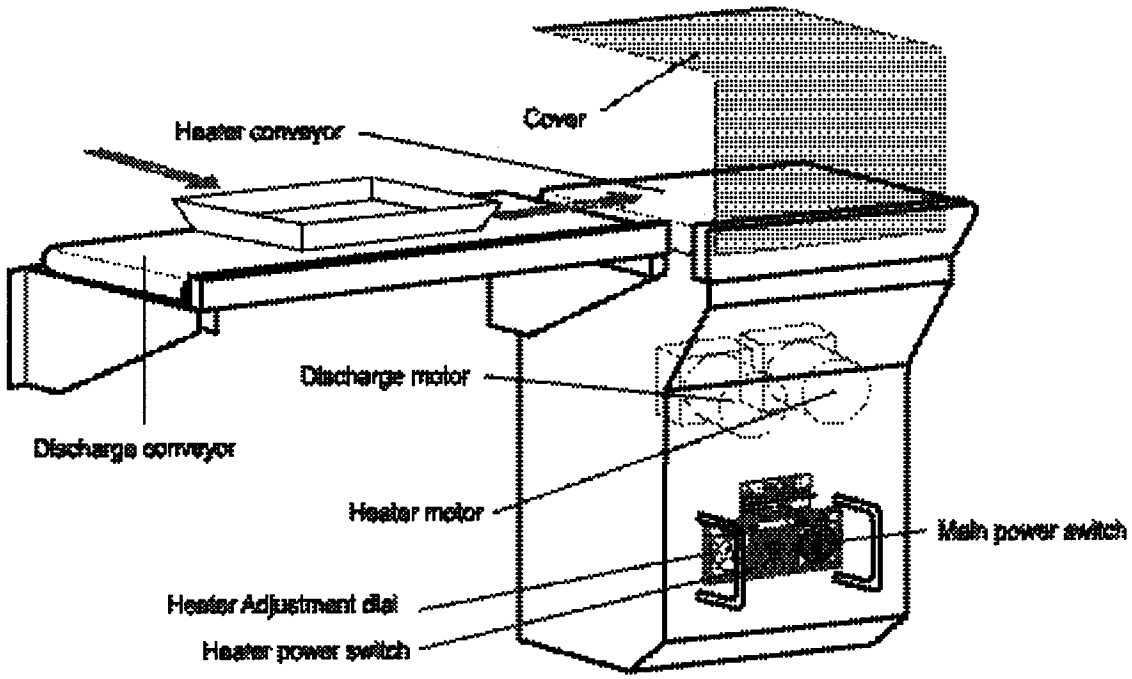
P-858 "C" Wrapper control board (Left side)

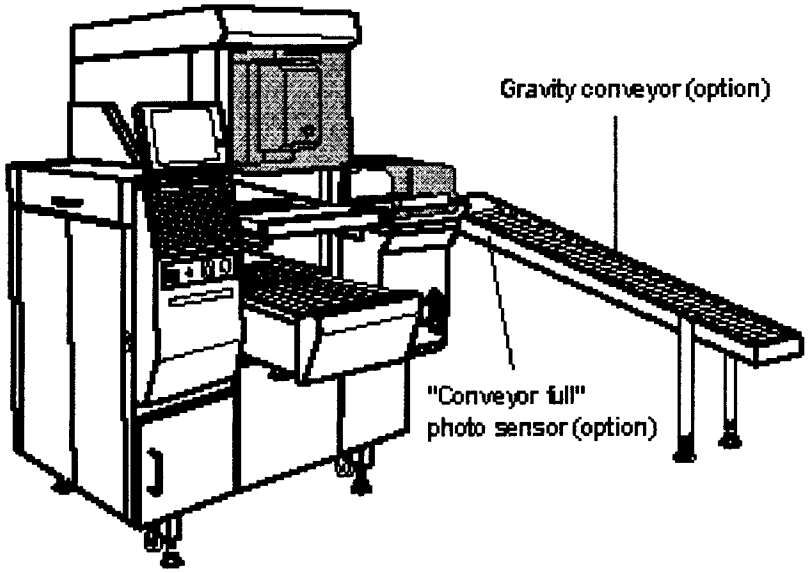
Number	Rating	Type	Protection for:	Error Number	Error Name	Symptom
F1	7A	5x20	24 volts DC	1122-0023	"Wrapper control board malfunction"	Cannot clear error message.
F2	1A	"	5 volts DC	"	"	"
F3	250V, 5A	"	200 volts AC	None	None	No Film Roll motor assist (Left or Right side)
F4	"	"	"	"	"	No misoperation.

7.26 DISCHARGE CONVEYOR

The OMNi-3000ST is equipped with a discharge conveyor that and a heater conveyor are attached to the main body. The wrapped tray is fed onto the discharge conveyor by the discharge pusher. Then, the film is sealed on the heater conveyor and the tray is fed onto the optional gravity conveyor.

Note: Consult your dealer for a gravity conveyor and "conveyor full" photo sensor.

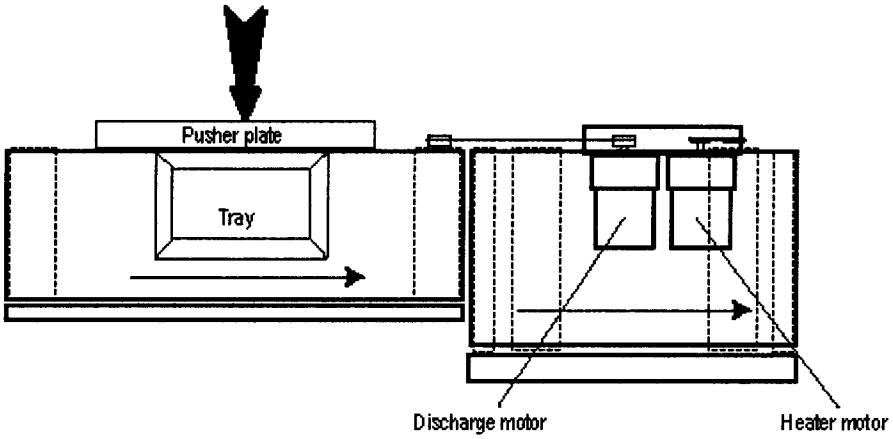


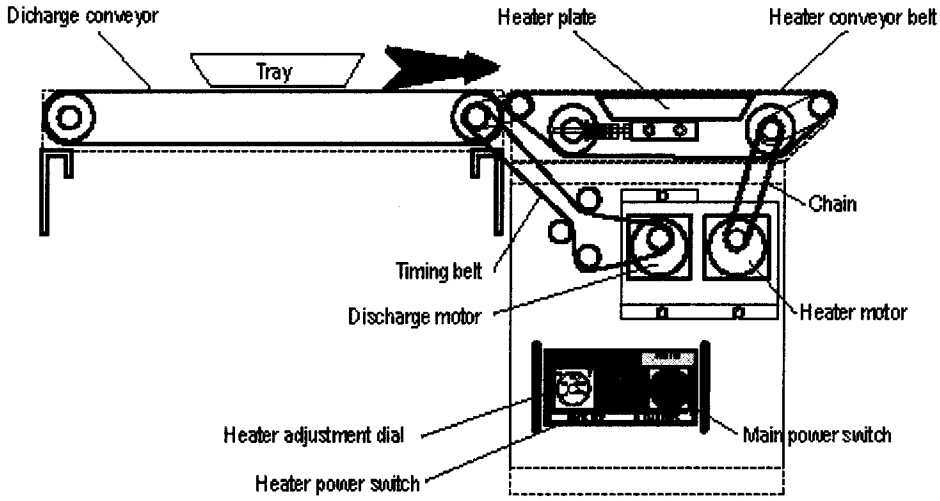


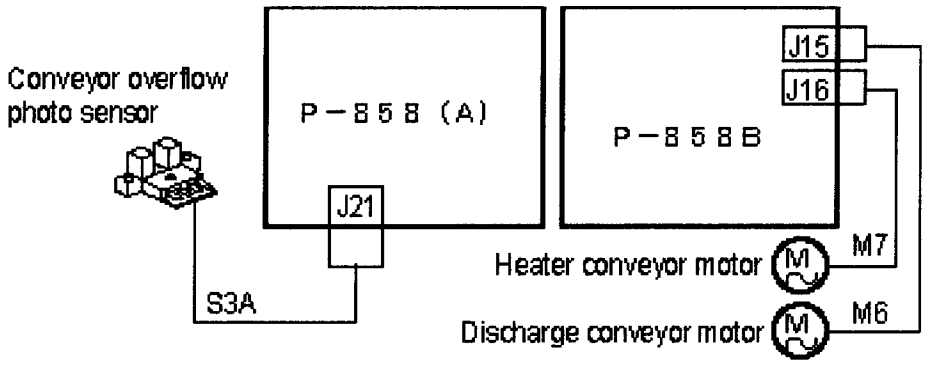
A drive signal is generated when the limit photo sensor (S3A) of the discharge pusher is interrupted.

Discharge conveyor error is not displayed. The error "1106-0000" is displayed if there is an error with the limit photo sensor (S3A) of the signal.

The conveyor drive timing can be set. Refer to Section 5-11 CONVEYOR SETTING.







Error Numbe	Message	Symptom	Check
1122-0023	Space for stock conveyor isfull	Operation stops when package is to be discharged.	Sensor is blocked. P857 sws set OFF if no sensor is connected.

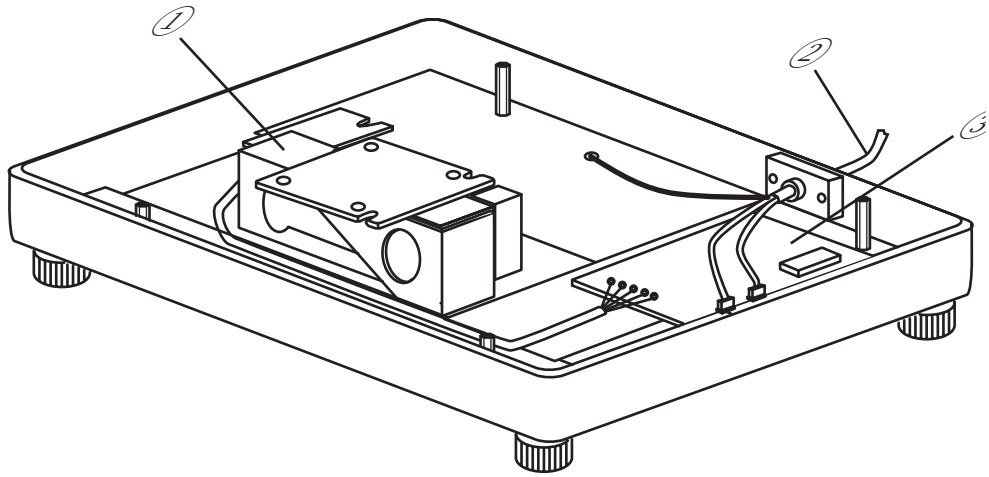
7.27 NON-MESSAGE ERROR CONDITIONS

Section	Symptom	Check
Warm up sequence	S message.	• Scale weight is unstable. → Check calibration → Replace A/D board → Replace load cell
Infeed	Stop position is inconsistant.	• Clean stop position photo sensor • Clean stop position photo sensor reflector • Check stop position photo sensor alignment • Adjust sensitivity of stop position photo sensor
Infeed	哲0 ITEM · error message is not displayed.	• Infeed pusher tabs break photo eye and give false readings that item has entered onto lifter.
Filme Feed	Film wrap around the polished roller. Rear film feeder does not align with small green belt on film press unit.	• Check film roll position • Check proper film coverage on white film feed belts. • Check action of film roll brake/solenoid. • Photo sensor is too strong → Signal is reflected of metal surface instead of reflective pad. Adjust sensitivity..
Labeller	Label does not apply. Prints → feeds OK	• Push printer back to engage home position micro switch.
Warm up sequence	After 展e will serve you shortly message, stuck at 擢: ¥>_粕	• Scrambled memory. • Perform SRAM and/or EZROM memory clear as needed.
Rear film feeder	Jumps and sticks when moving between large and small film sizes.	• Clean and lubricate main square shafts. • Disassemble and check condition of plastic travel blocks. • Clean and libricate main hexagonal drive shaft.
Infeed	Slow package entry + exit more niticeable on heavy packs.	• Check that leveling legs are making firm uniform contact so machine does not rock.

Chapter 8

LOAD CELL UNIT

8.1 LOCATION OF MAIN PARTS



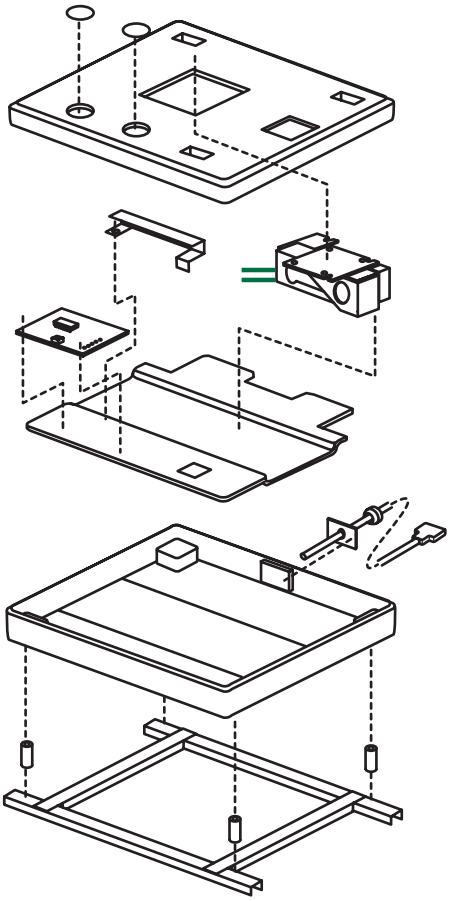
Location of main parts

No.	Part Name
1	LC unit CLC-25N
2	Harness C3' scale 1
3	A/D board PWB' 830

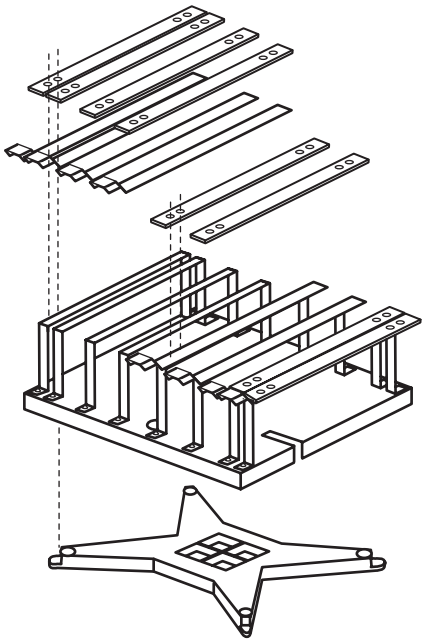
- Only main parts are mentioned here.
- Refer to "Parts List" for parts that are not covered in this manual.

8.2 REPLACING THE LOAD CELL UNIT

1. Remove the infeed conveyor and roller unit



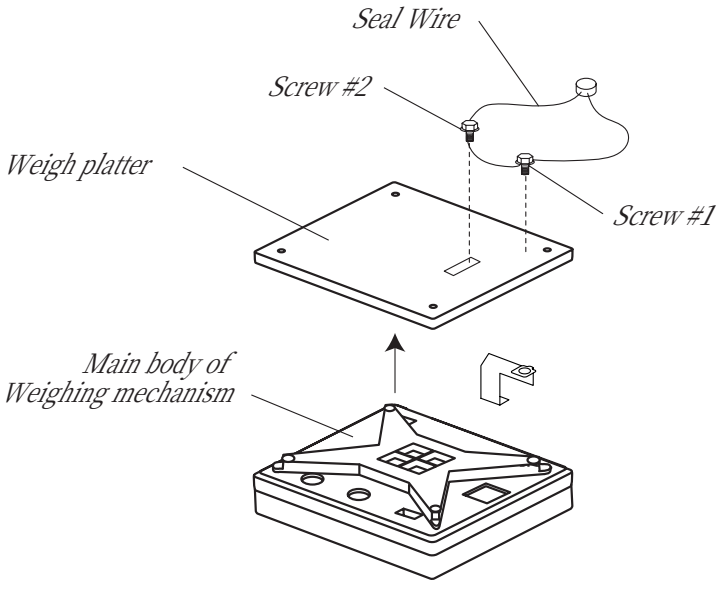
Infeed unit



Roller unit

2. Cut the seal wire and remove the weigh platter

(1) Cut the seal wire
(2) Unfasten seal screws #1 and #2, and remove weigh platter.



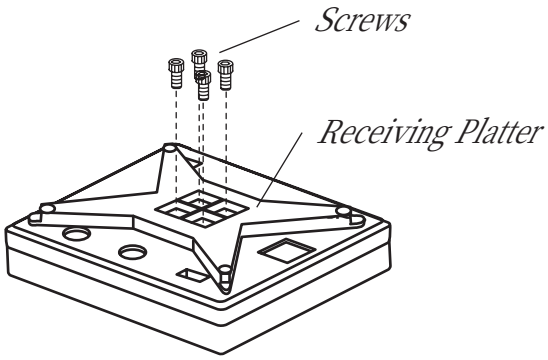
Seal wire and weigh platter

⚠ CAUTION

Do not cut the base seal wire if not required since it is necessary to replace the sanction seal when the seal wire is cut.

3. Remove the platter support

(1) Loosen the four (4) screws holding the platter support.

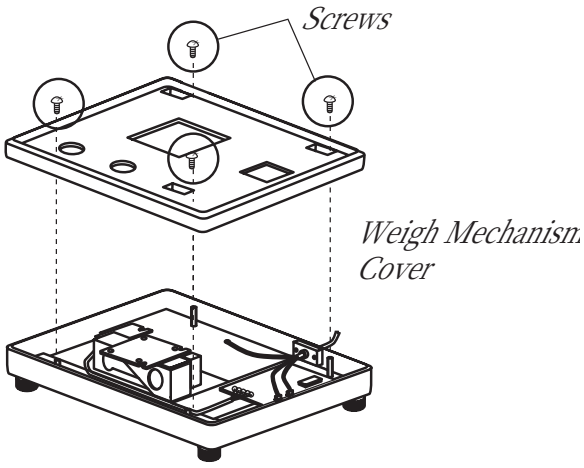


platter support

4. Remove the weigh mechanism cover

(1) Loosen the four (4) screws holding the weigh mechanism cover.

(2) Slowly lift the weigh mechanism cover.



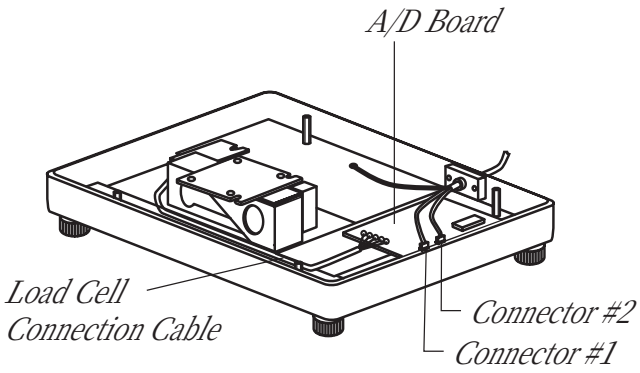
Weigh mechanism cover

5. Remove the A/D board

(1) Disconnect connector #1 and #2 from the A/D board.

(2) Remove the A/D board rocking support (4 locations).

(3) Remove the load cell connection cable solder (5 locations).



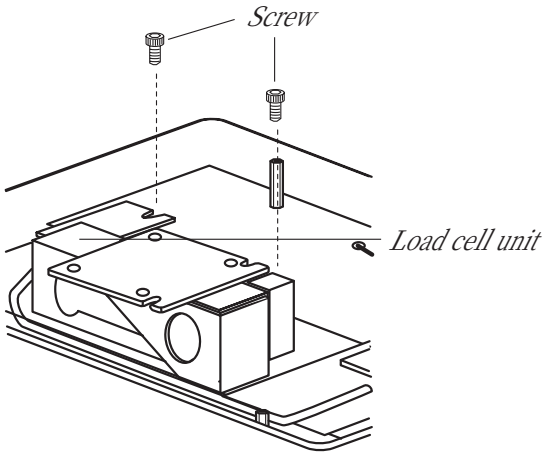
A/D board

6. Remove the load cell unit

(1) Loosen the load cell unit screws (3).

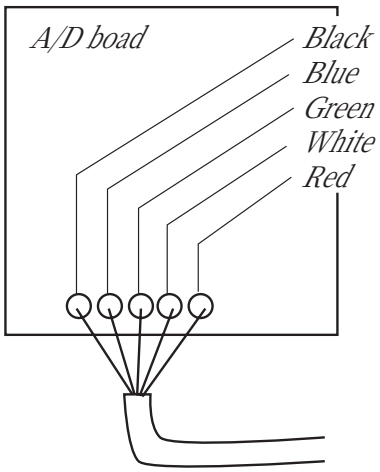
(2) Remove the load cell unit.

The load cell output cable is soldered to the board.



Load cell unit

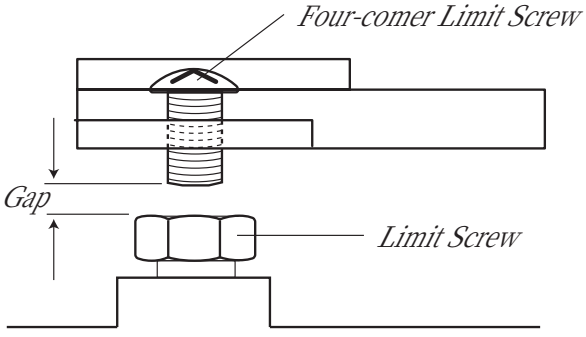
Be careful not to mistakenly attach the wrong wires when soldering the load cell cable.



Load cell output cable

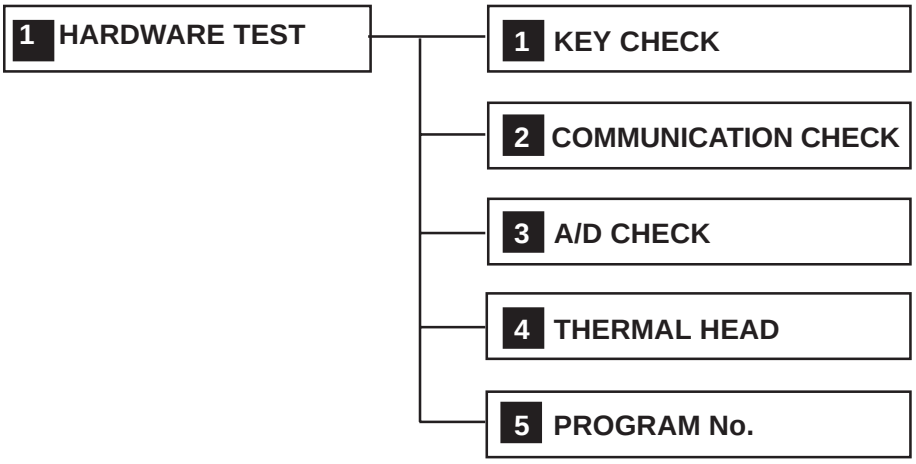
7. Confirm the position of the four-corner limit screws after replacing the load cell

- With the roller unit, weigh platter, platter support installed, adjust and confirm the position of the four-corner limit screws.
- The four-corner limit screws are constructed to protect the load cell from being damaged when and excessive load is applied to the weigh platter.
- Adjustment of the four-corner limit screws is necessary when the load cell has been replaced or the main body has received a jolt.



8.3 SPAN ADJUSTMENT

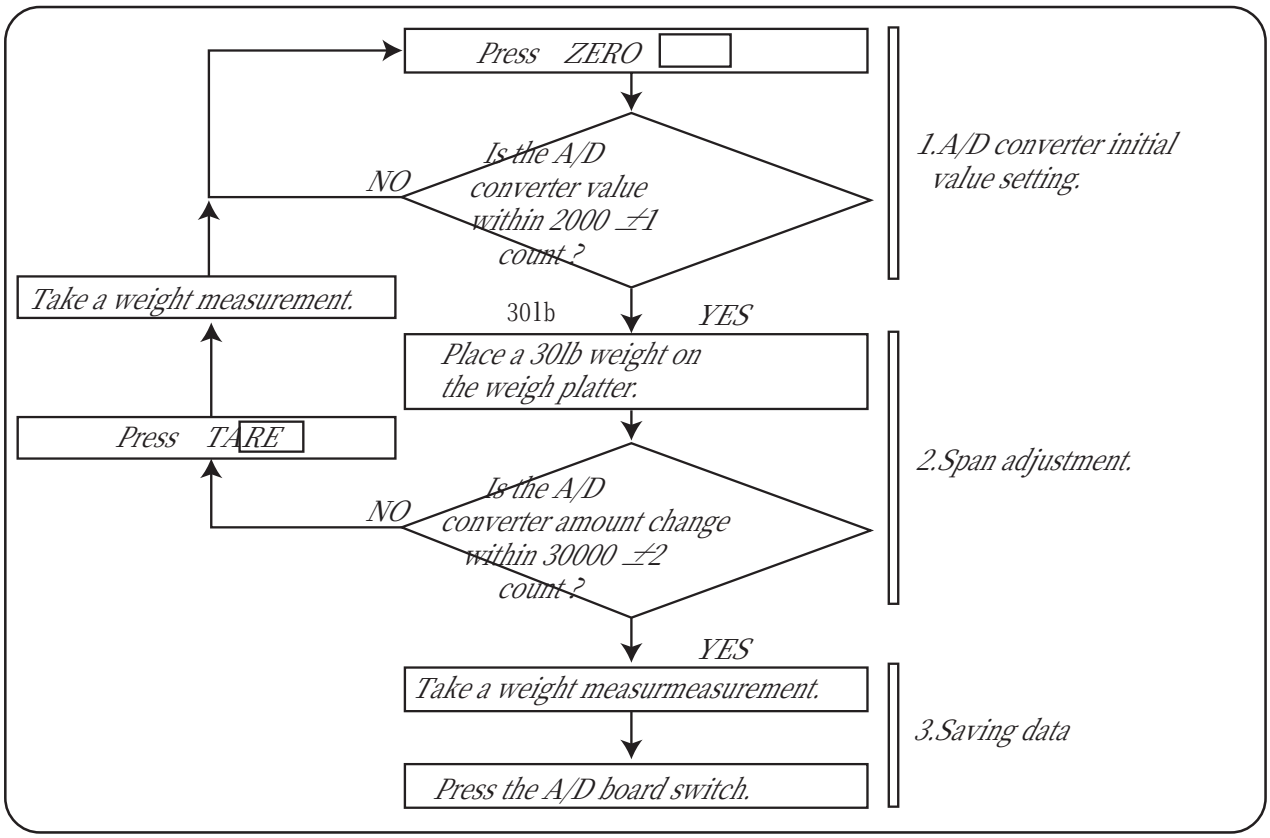
Span adjustment is performed in test mode. Refer to “Test Mode” for the procedures on starting test mode.



8.3.1 ADJUSTMENT PROCEDURE

Confirm the present setting.

8.3.2 SPAN ADJUSTMENT FLOWCHART



1. A/D Converter Initial Value

- Press **[ZERO]**.
- The A/D converter initial value is displayed in the unit price column.
- Confirm that the initial value is within 2000 ± 1 count.
- If it is within 2000 ± 1 count, perform span adjustment.
- If it is not within 2000 ± 1 count, press **[ZERO]** and confirm.

2. Span Adjustment

- Place an item weighing 30lb on the weigh platter.
- The A/D converter weight change is shown in the weight column.
- Confirm that the span adjustment is within 30000 ± 2 count.
- If it is within 30000 ± 2, save data. If span adjustment is not within 30000 ± 2 count, press either the **[TARE]** or **[SPAN]** button to take a weight measurement.
- Repeat procedure beginning with “1. A/D converter initial value”.

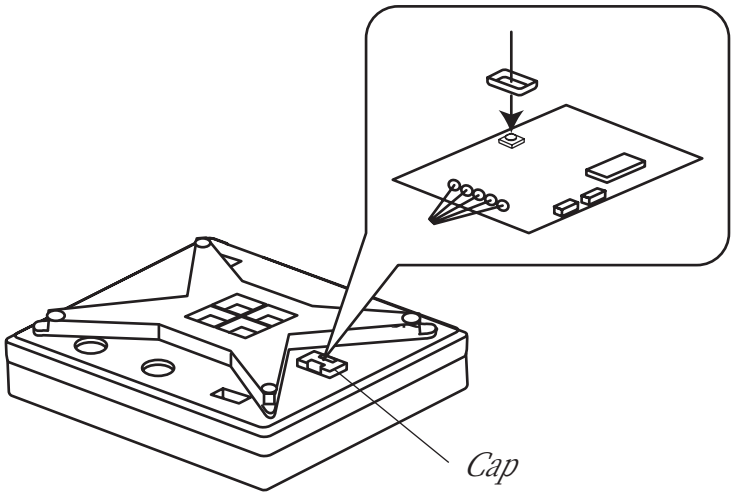
*Note: When SPAN is positioned at 30lb, continue to press the **[30000]** button until the counter reaches **[37500]**. Refer to A/D check in Test Mode.*

3. Saving data

- Save data to E 2 ROM.
- Remove weight from platter and remove platter.
- Remove cap and press switch from top.

4. Removing load cell unit

- Turn off power to complete span adjustment.



Disconnecting power

⚠ CAUTION

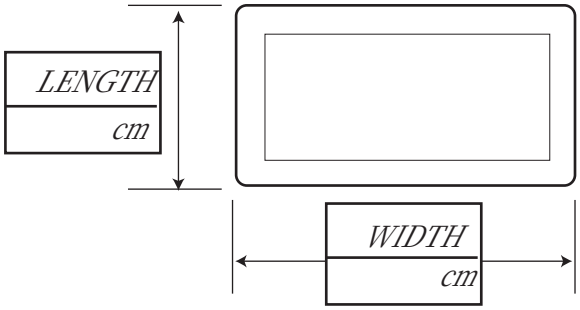
Do not touch the switch with a screwdriver or any other metallic objects.
Do not cut the base seal wire if not required since it is necessary to replace the sanction seal when the seal wire is cut.

Chapter 9

WRAPPING KNOWLEDGE

9.1 WRAPPING PROGRAMMING

Set the pusher speed for the tray having the longest length.
Example: Width = 28cm; Length = 22cm

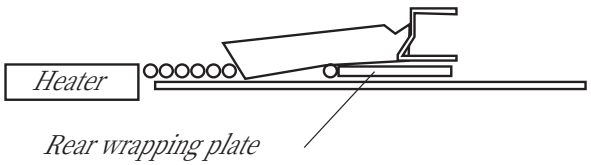


The default setting for the pusher speed is “45”. In this case, the length of the tray is 26cm.

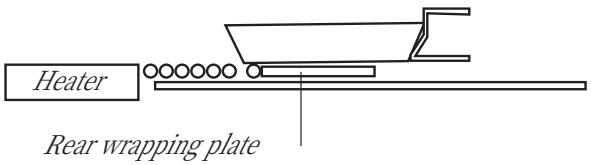
Length	20cm	21cm	22cm	23cm	24cm	25cm	26cm
	↓	↓	↓	↓	↓	↓	↓
Speed	51	50	49	48	47	46	45

Select the appropriate film width for the tray length.
The appropriate film width can be obtained by adding 4cm to the tray circumference.
Example: Length = 22cm, Height = 3cm, so this makes 22cm + 22cm + 3cm + 3cm = 50cm
For these dimensions, 54cm of film width is most appropriate.

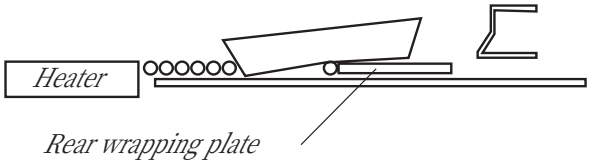
Why is it necessary to adjust the speed?



The pusher pushes the tray when the rear wrapping plate does not reach its limit. If the wrapping is performed at this time, the tray will be crushed forward.



The pusher pushes the tray smoothly when the rear wrapping plate reaches it limit.



Adjust the volume to delay pusher timing. The pusher pushes the tray when the rear wrapping plate reaches its limit.

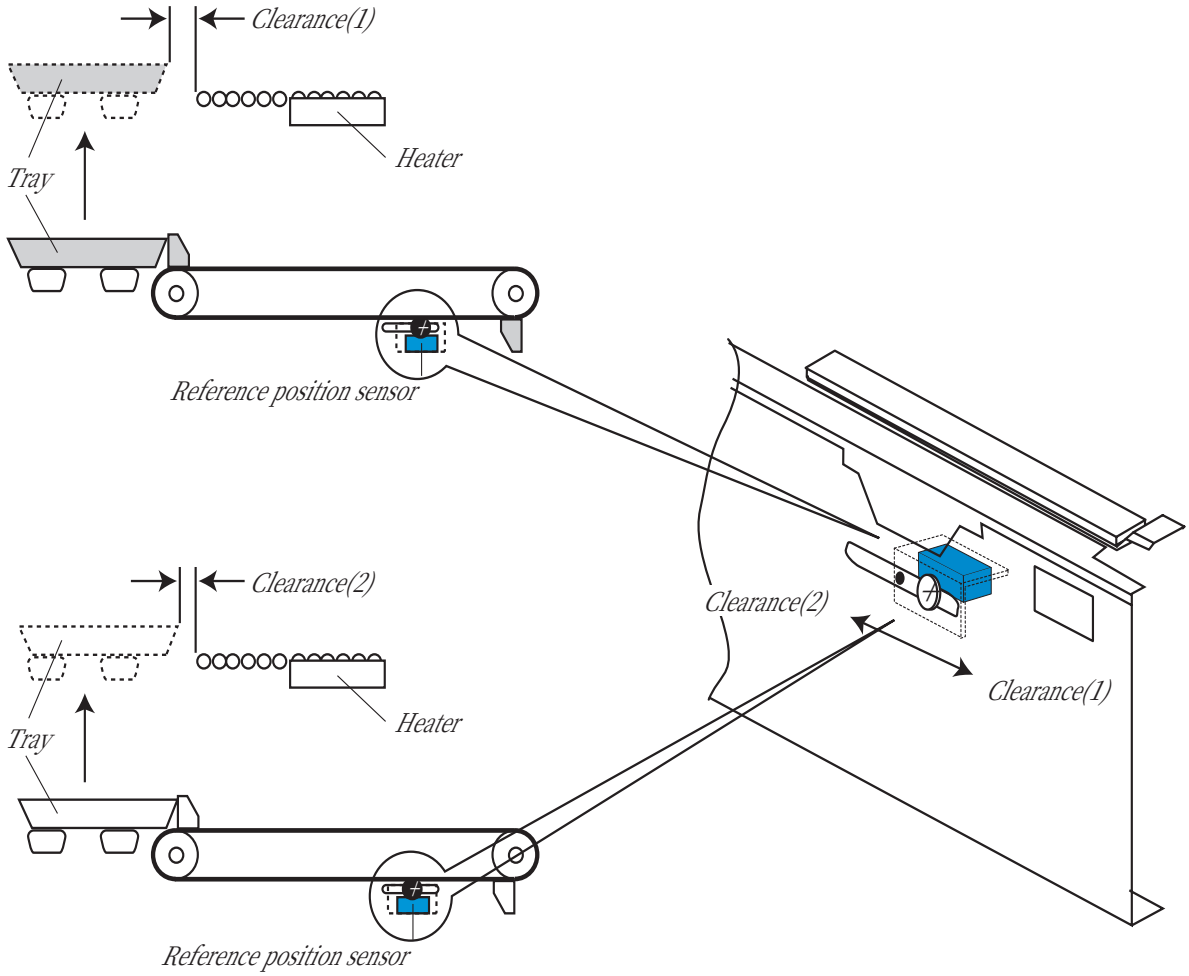
ADJUST ORIGINAL POSITION SENSOR POSITION

When OMNI-3000 is shipped our factory, it is adjusted by Ishida original tray. So, it needs to adjust to suit the customer's tray.

It is better to adjust the tray to come up as much closer as to the edge of discharge roller.

- By adjusting Original Position Sensor position (Clearance (1): adjusted position when ex-factory), it can be adjusted the position which the tray comes up to discharge roller area.When adjusting the position, please select tallest (weakest) tray.
  Original Position Sensor should be adjusted without tray crash and the tray comes up as much closer to the edge of discharge roller (Clearance (1) to Clearance (2).
- When adjusting the position, please set STOP POSITION of TRAY PROGRAM 1/2 as BACK (default = FRONT : see chapter 5.12 TRAY FILE, page 5-47).
- After completion of above adjustment, please check all other trays can be wrapped properly. In this case, please set back STOP POSITION of TRAY PROGRAM 1/2 as FRONT.

Note: During above other trays check, it may crash the tray, or appears message of "No item". In this case, please set STOP POSITION as BACK. If still error occurs, please adjust Original Position Sensor again, with this tray.



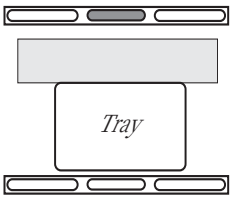
ADJUST THE FILM TENSION OF THE TRAY SURFACE.

Adjust the overall film tension of the tray surface using the [+] and [] buttons. The film tension can be adjusted by adjusting the timing of movement of the rear wrapping plate, left and right wrapping plates, and the pusher as well as the solenoid strength.

Rear tension
0
+ | -

← Adjust the tension of the rear of the using the solenoid.

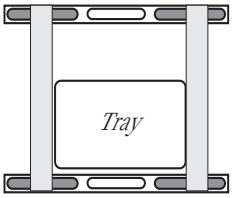
The rear tension of the tray is adjusted by using the rear wrapping plate. →



Side tension
0
+ | -

← Adjust the tension of the tary side using the solenoid.

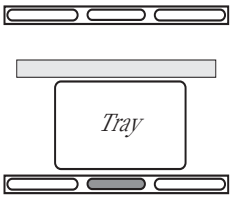
The tensions of the tray sides are adjusted by using the side wrapping plate. →



Front tension
0
+ | -

← Adjust the tension of the front of the using the solenoid.

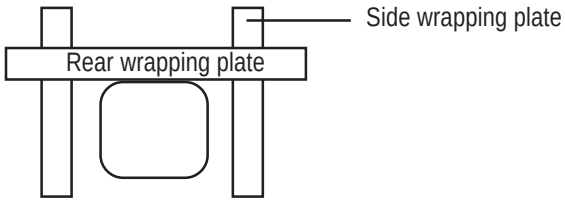
The rear tension of the tray is adjusted by using the rear wrapping plate. →



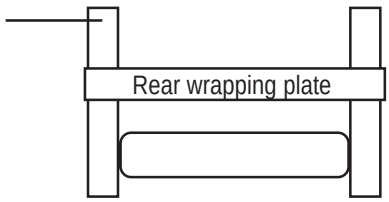
The difference between rear tension and side tension must not exceed three. Adjust by changing the setting for the length and width of the tray.

Change the settings for width and length of the tray.

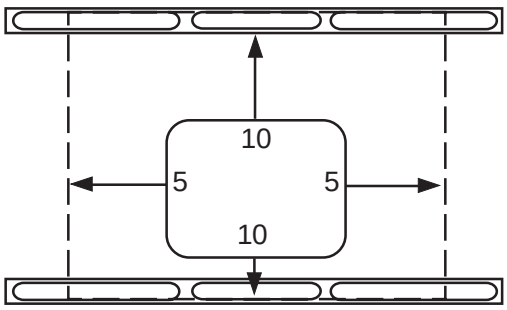
Start timing of wrapping plates is programmed by entering the tray length and width. The timing of the rear wrapping plate and side wrapping plates will slightly differ depending on the individual machine when the tray size is set as “19” or “20” for half tray size such as “19.5cm.



The rear wrapping plate reaches the tray faster than the side wrapping plates.



The side wrapping plates reach the tray faster than the rear wrapping plate.

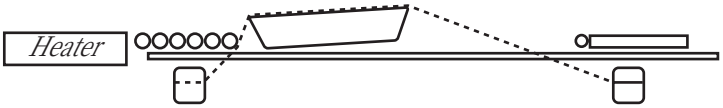


This illustration shows the film tension distribution over the tray.
This illustration shows the film tension The tension for the four sides of the tray varies. This illustration shows that the tensions on both sides are difficult to adjust.
When adjusting the tension, adjust not only by setting the clump-solenoid strength but also by changing the tray dimensions.

Adjust the position of the original position sensor

This has to be adjusted according to customer requirements (At factory shipment, it is set to a position where all types of trays can be accommodated).

The film length between the front and rear does not differ because the tray is raised too early. This makes it difficult for the rear wrapping plate to be inserted under the tray and causes the tray to be hit by the plate.



The rear wrapping plate is easily inserted because the rear side of the tray raises as the tray is lifted towards the discharging roller.

- “Sensor position”: to be adjusted for high or weak trays to lift.
- Set the original position sensor to lift trays when they come close to the discharging rollers.
  When an inappropriate film width is selected, smooth wrapping will not be carried out even after adjustments have been performed.

Select the film width

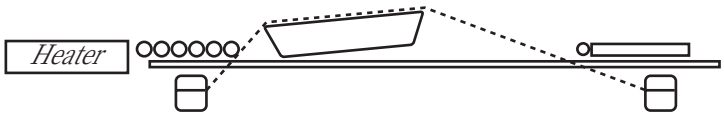
How to select film width is described in the previous item 1. Is it not selected by imagining only the completed condition? You may think that it is “OK” because the film is overlapped 1cm, but you had to take the strength of the tray into consideration as well.

There are various problems such as the tray was broken, the film was not folded into the rear side of the tray and so on.

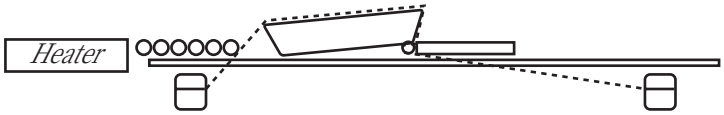
The illustrations below show what the film length causes.

The wrong film width was selected. The film length at the rear and front are almost the same.

The rear wrapping plate cannot be inserted because the film at the rear side cannot be stretched. If the film cannot be stretched, the tray is pushed down by the rear wrapping plate.



A correct film width is selected. The film length at the rear is longer that that of the front.



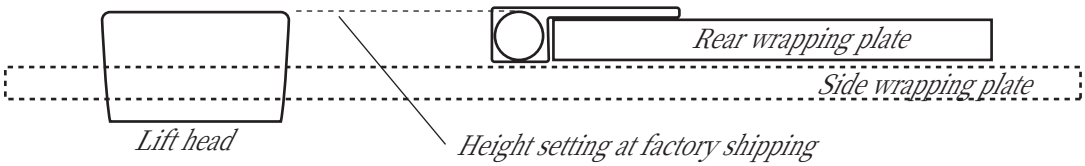
The rear wrapping plate can be easily inserted under the tray because the film at the rear can be stretched.

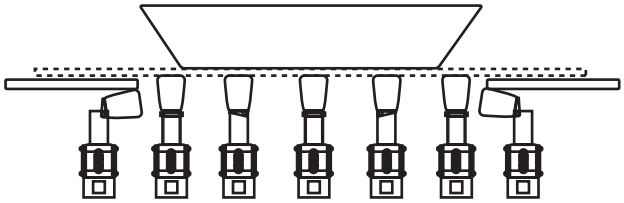
Adjust the lift head height

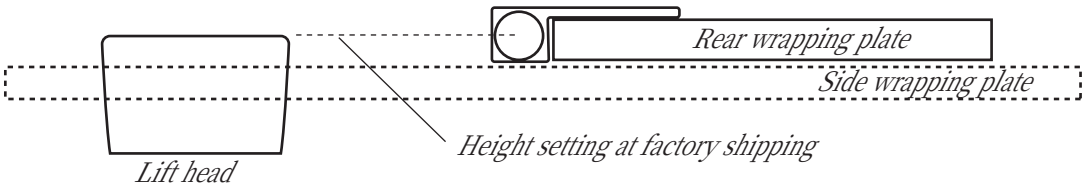
Lift head height must be adjusted according to the shapes of the tray bottoms. (At factory shipment, the head height setting is not lower than the surface of the rear wrapping plate.)

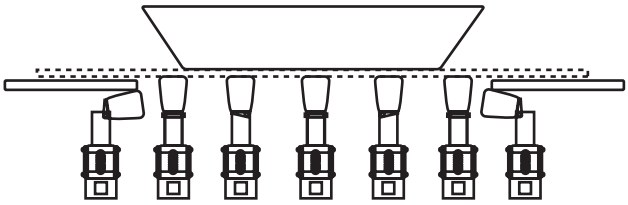
- Wrapping conditions must be adjusted by selecting a correct width of the film, tray lifting position, tray sizes and the strength of the solenoid. A trouble should not be removed only by raising the lift head height when a tray is damage.

- Lift Head Height



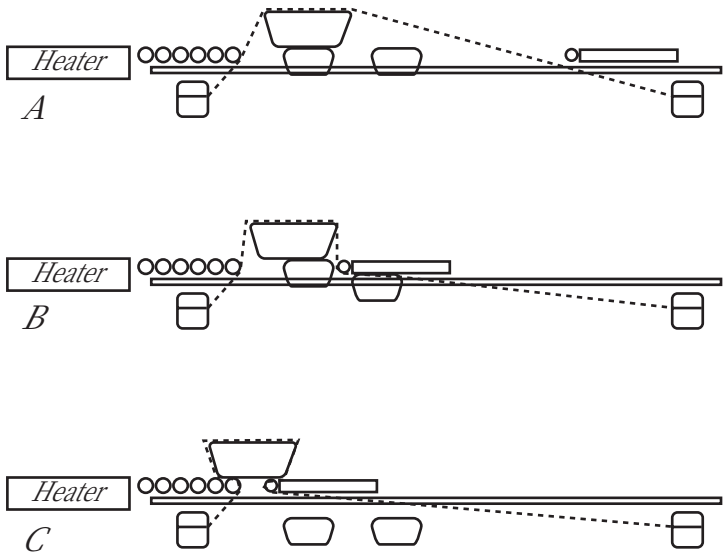






Find and set the best positions after carrying out wrapping tests for each tray type. The positions will differ depending on strength and shapes of the trays.

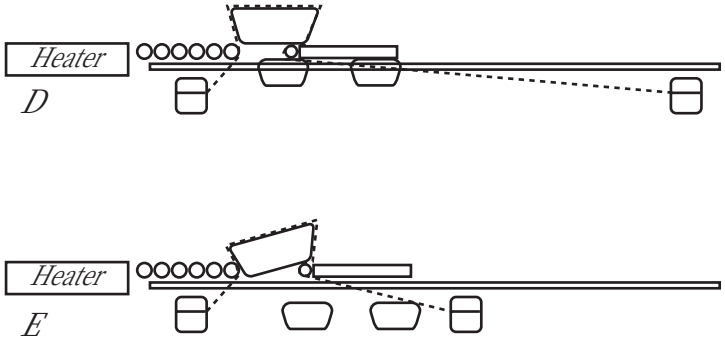
When the lift head is set too high and/or the film is too wide.



When the lift head is set too high (A), the tray is pushed onto the discharging rollers (C) by the rear wrapping plate (B) and the film from the rear cannot be folded underneath the tray bottom.

When the lift height is appropriate, the film at the rear is properly folded under the tray bottom (D) because the tray is not pushed onto the discharging rollers.

If the film is too wide, the film at the rear will become too loose to be folded under the tray bottom.

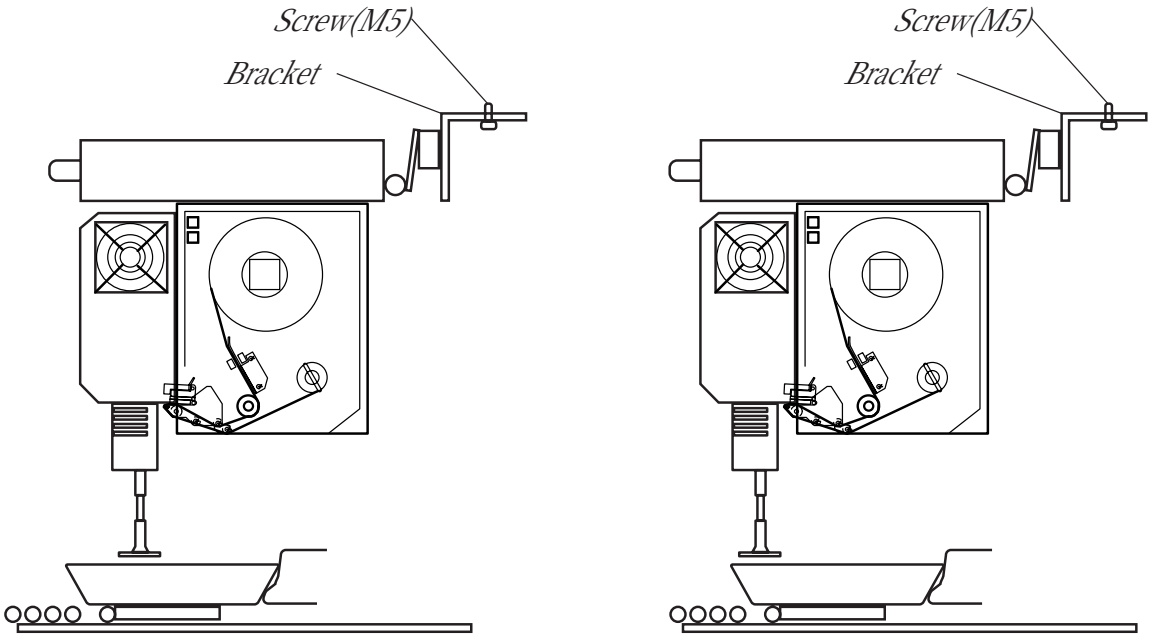


SET THE POSITION OF LABEL APPLICATOR

A default value has been set for the label applicator position.

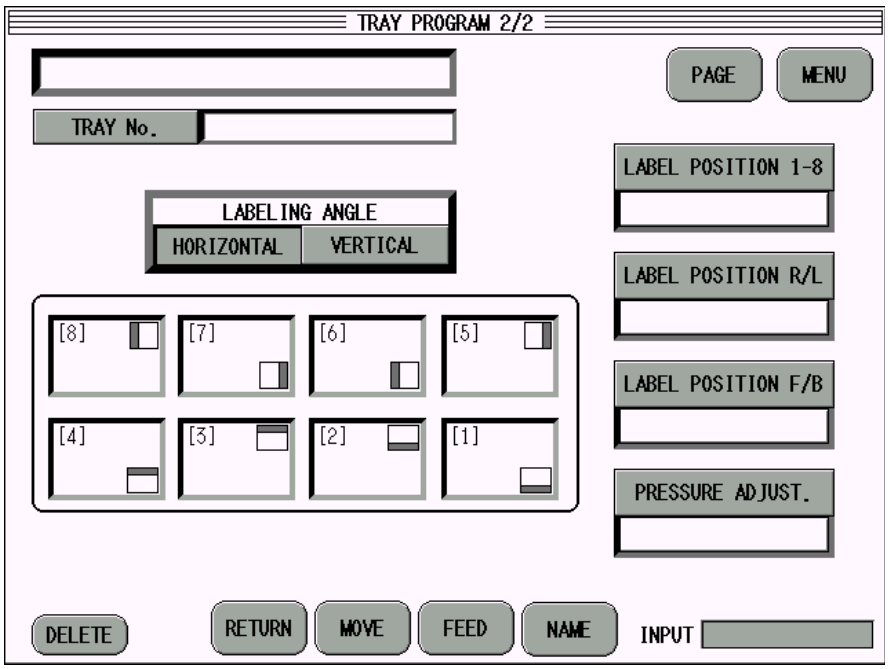
In order to position the label applicator in a required place, change a numeric value of the Label Position F/B on the Tray Program 2/2 screen using the [+] and [-] buttons.

Label application timing is counted after the pusher starts moving, and the label is applied during a tray is moving.



Note: When attaching the bracket, ensure that the magnet and rubber are placed correctly.

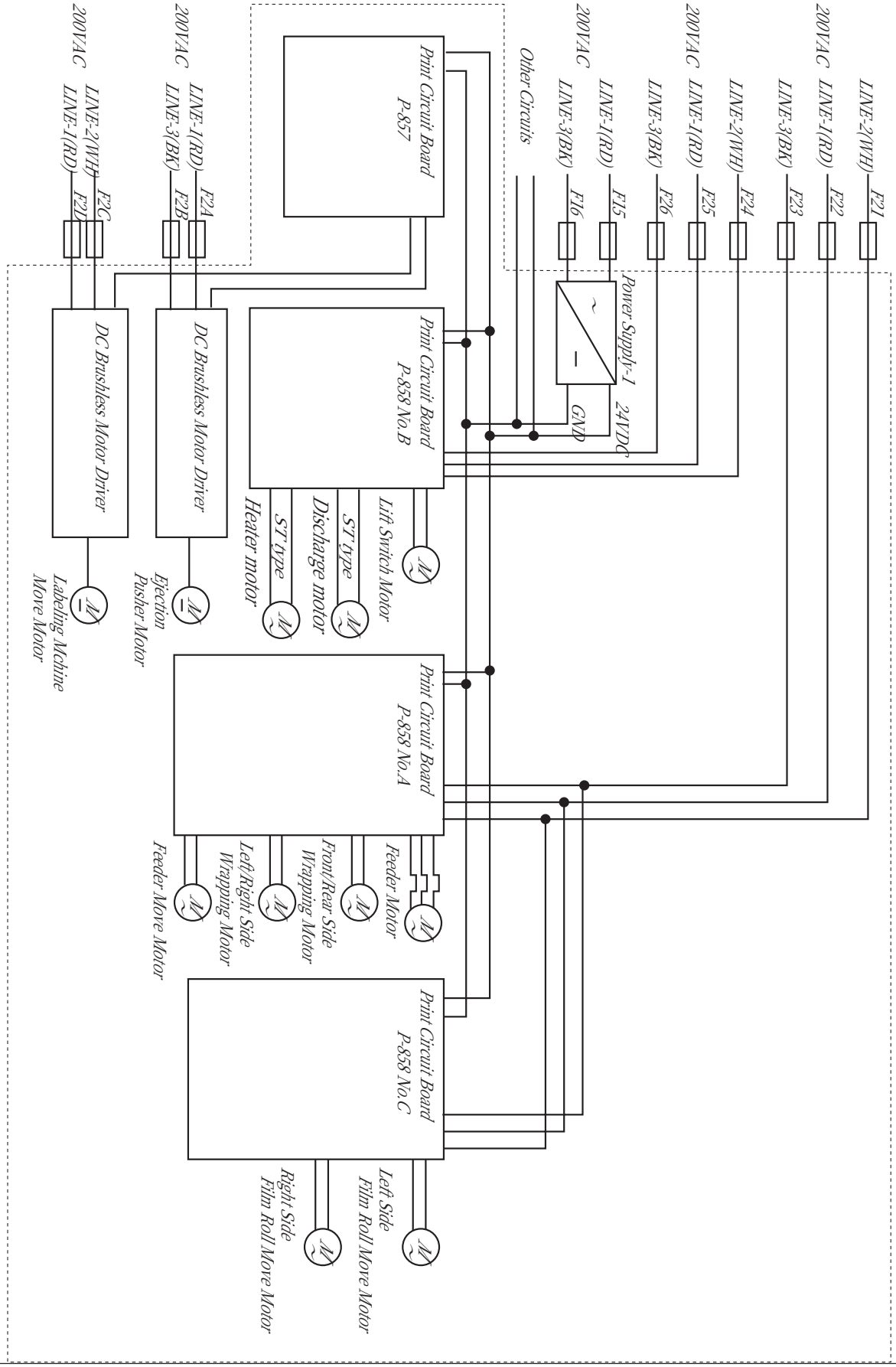
When the bracket installation and the tray adjustment are not performed properly, the error (1106-0002) will be caused.



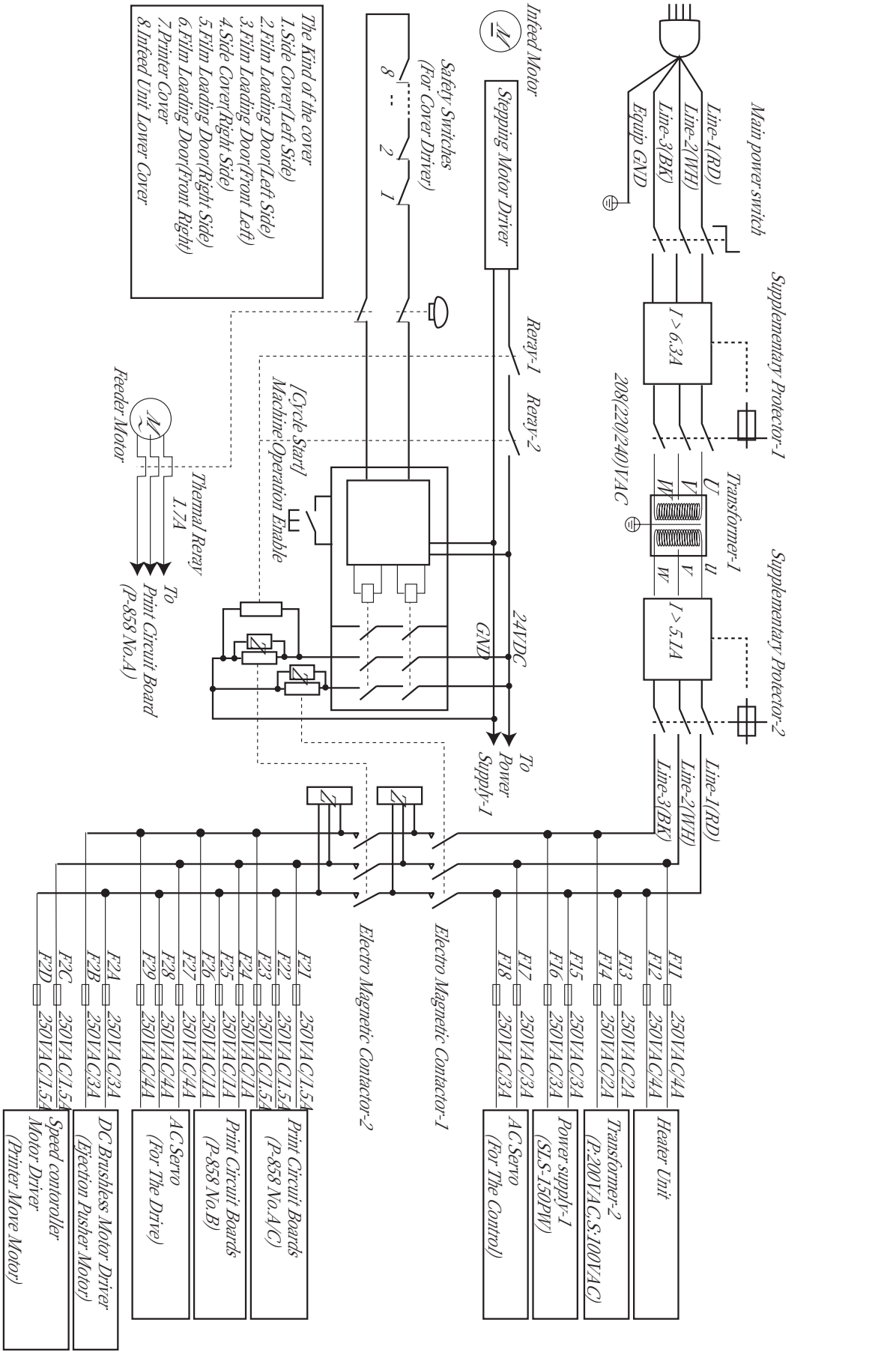
Chapter 10

WIRING DIAGRAMS

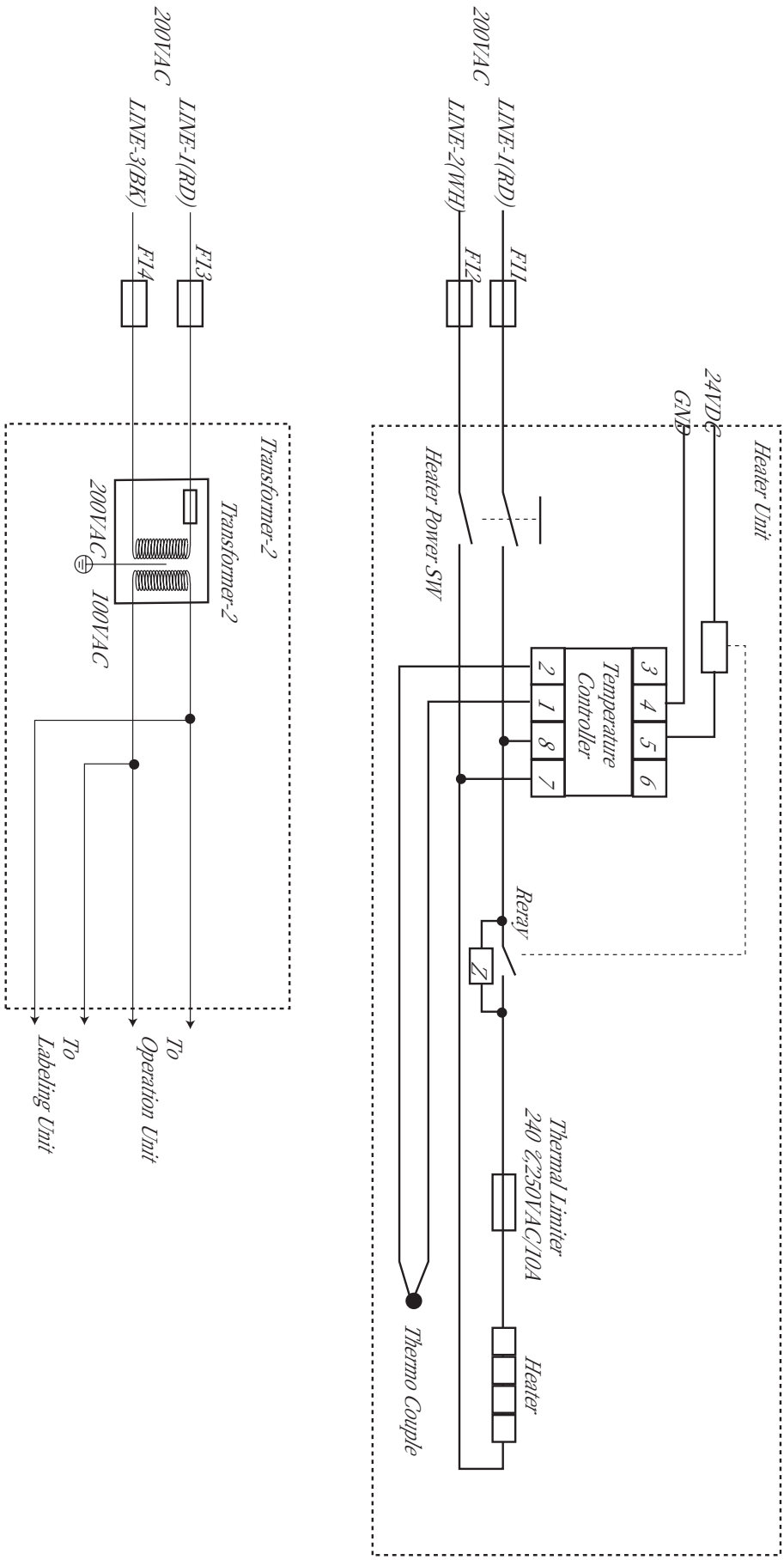
HIGH VOLTAGE CIRCUITS (POWER SUPPLY, PRINTER, DC BRUSHLESS MOTOR)



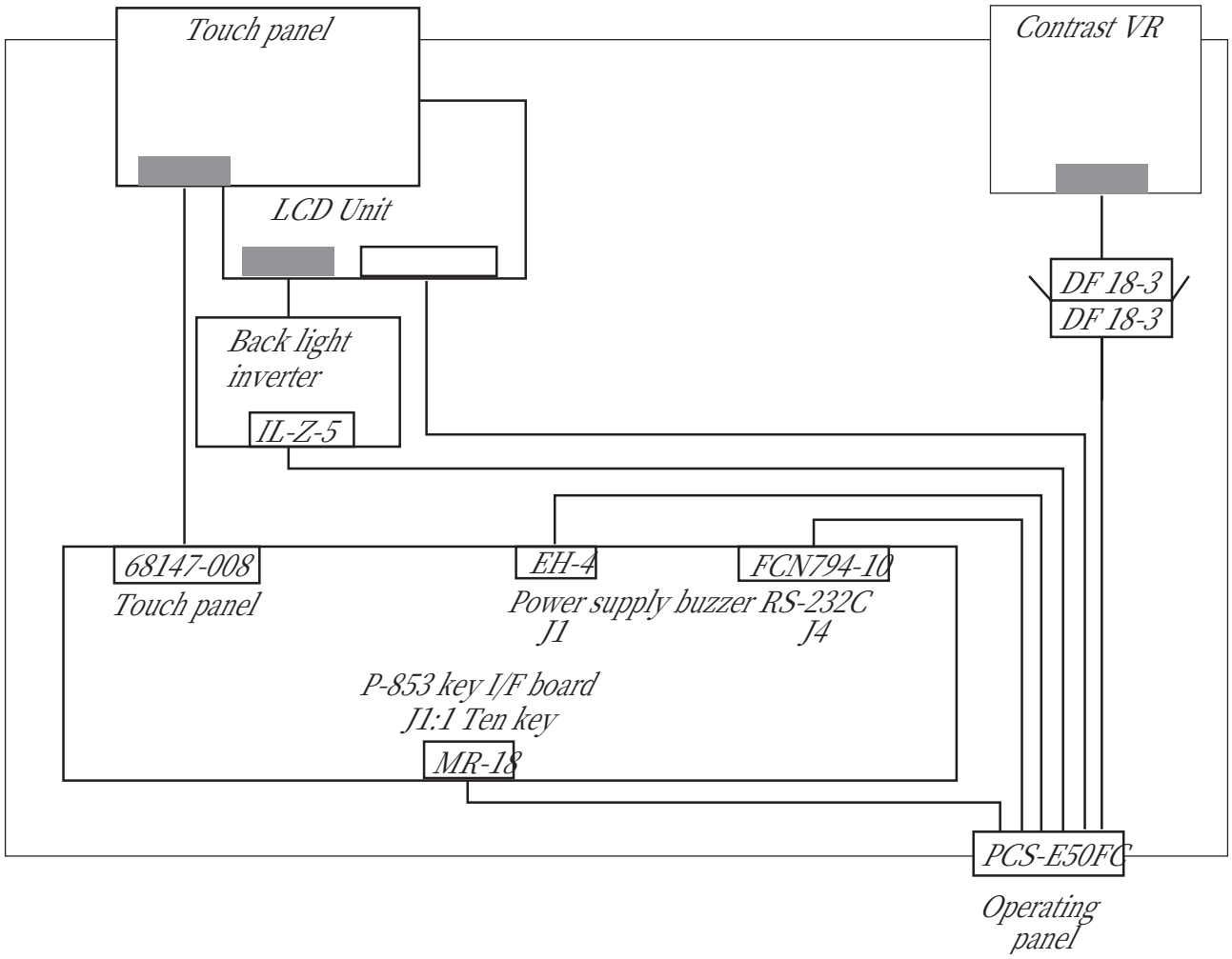
HIGH VOLTAGE CIRCUITS (SAFETY CIRCUITS)



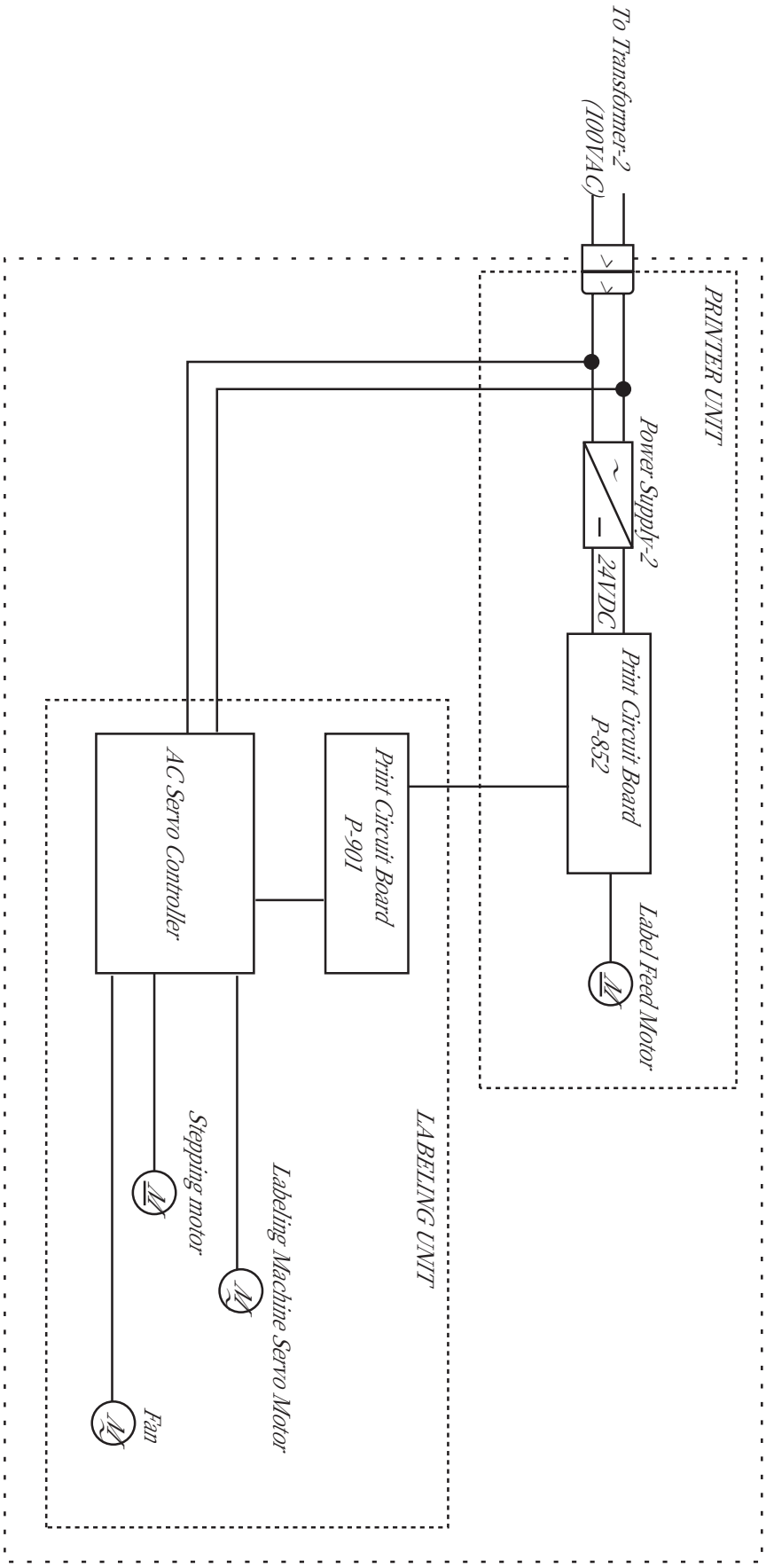
HIGH VOLTAGE CIRCUITS (HEATER UNIT)



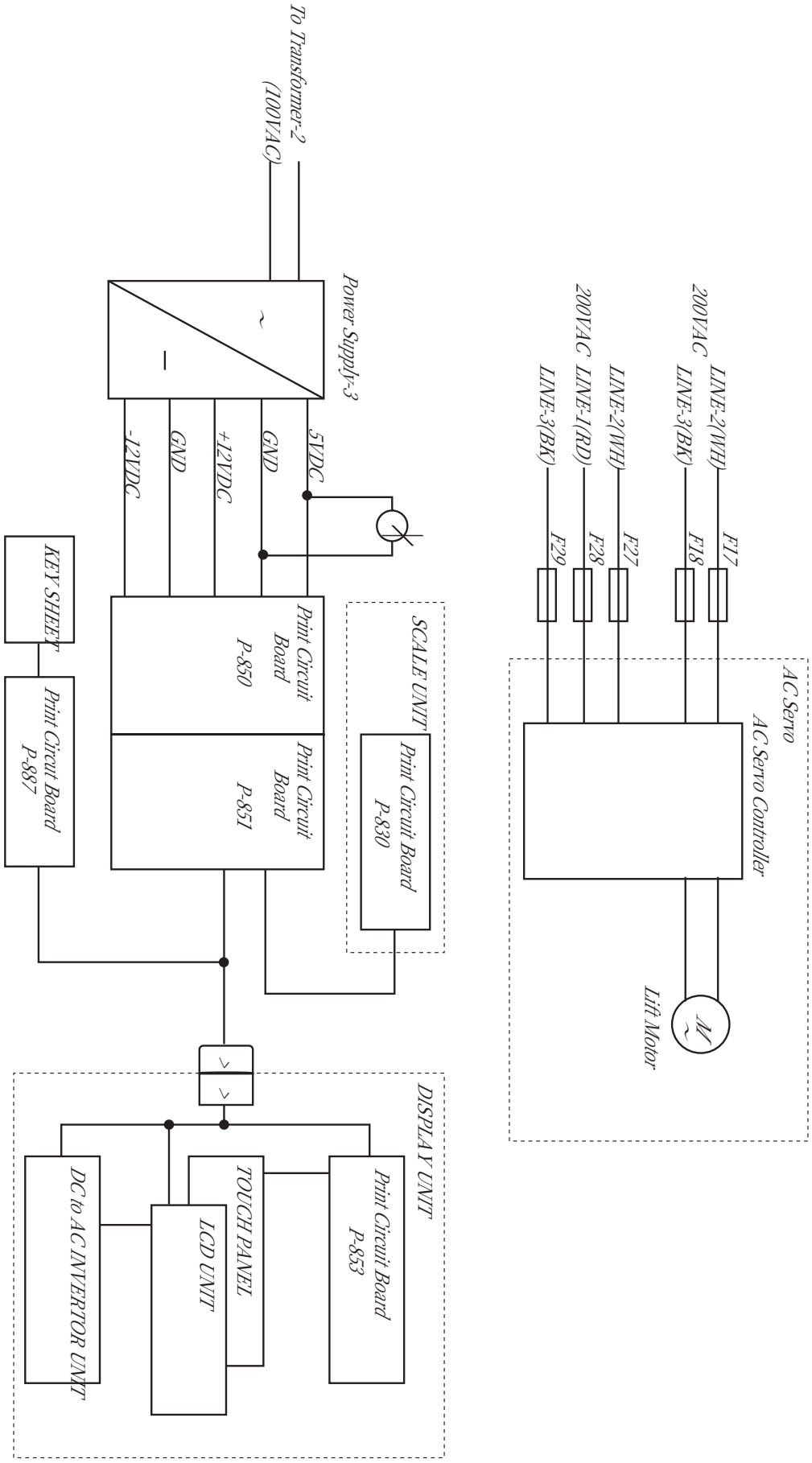
TOUCH PANEL


Touch panel
Contrast VR
LCD Unit
DF 18-3
DF 18-3
Back light inverter
IL-Z-5
68147-008
Touch panel
EH-4
Power supply
J1
FCN794-10
buzzer RS-232C
J4
P-853 key I/F board
J1:1 Ten key
MR-18
PCS-E50FC
Operating panel

HIGH VOLTAGE CIRCUITS (LABELING UNIT)



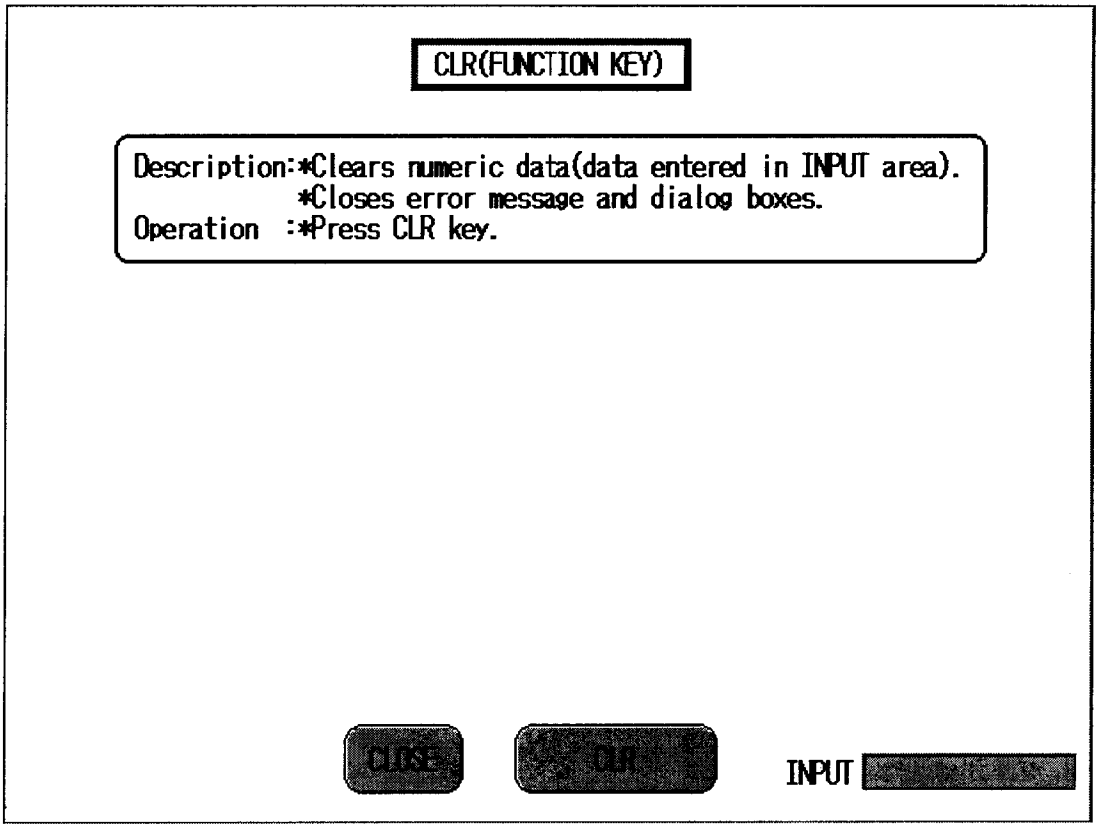
HIGH VOLTAGE CIRCUITS (AC SERVO, OPERATION UNIT)

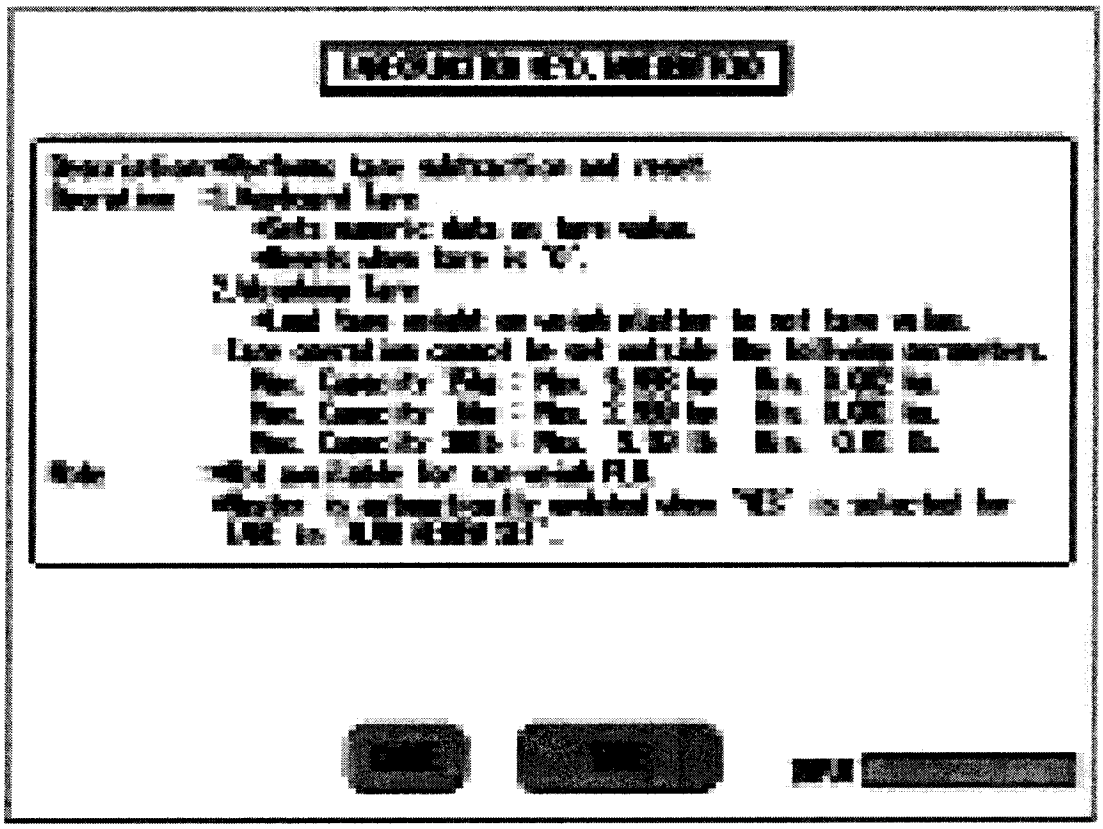


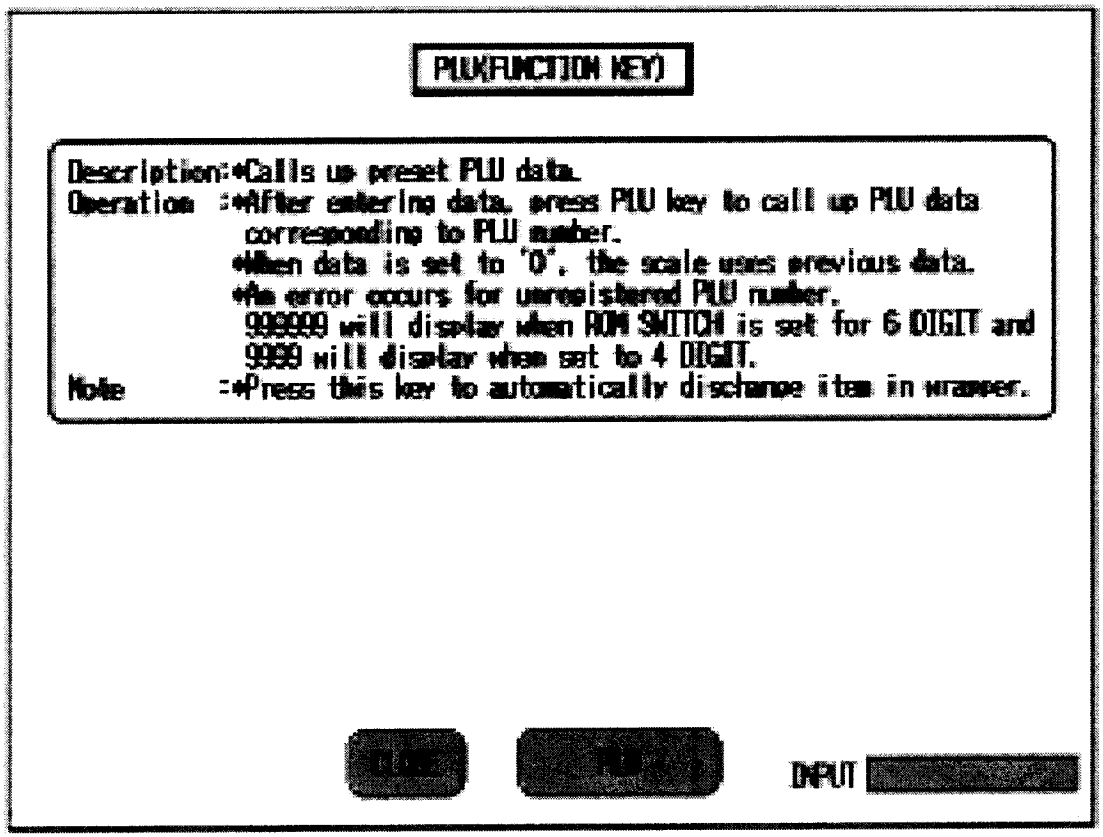
Chapter 11

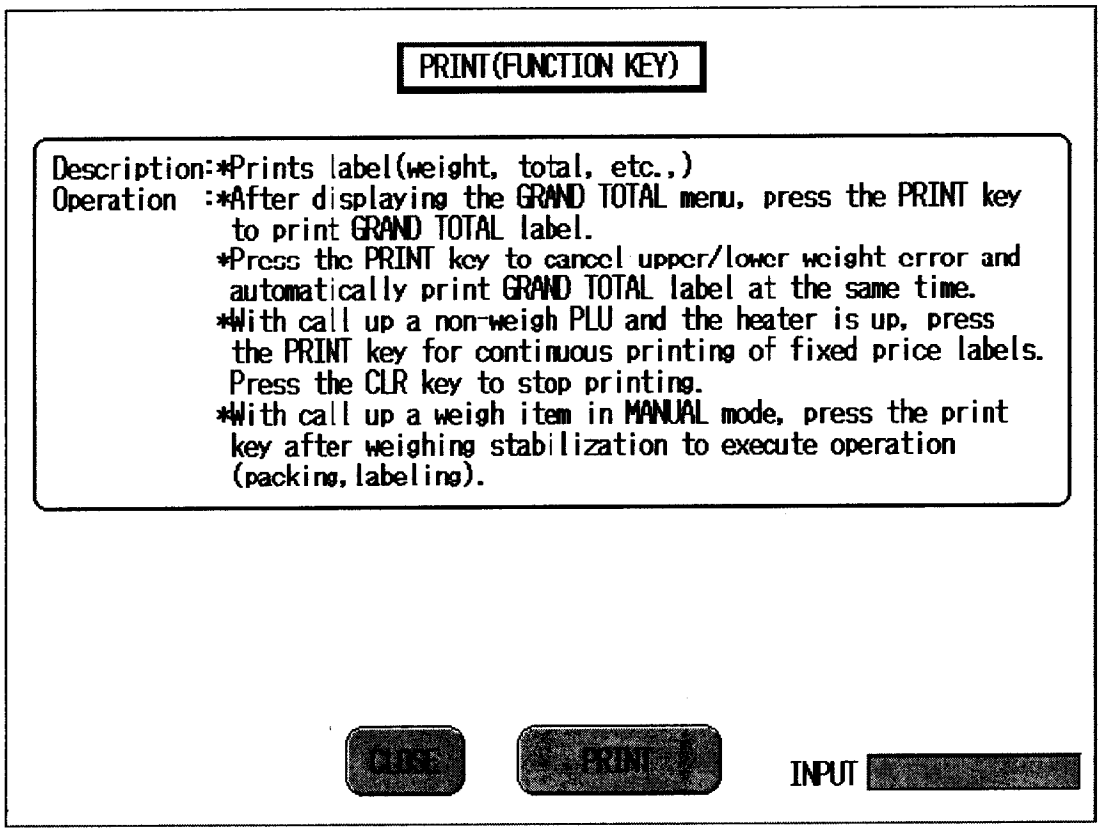
HELP MESSAGE

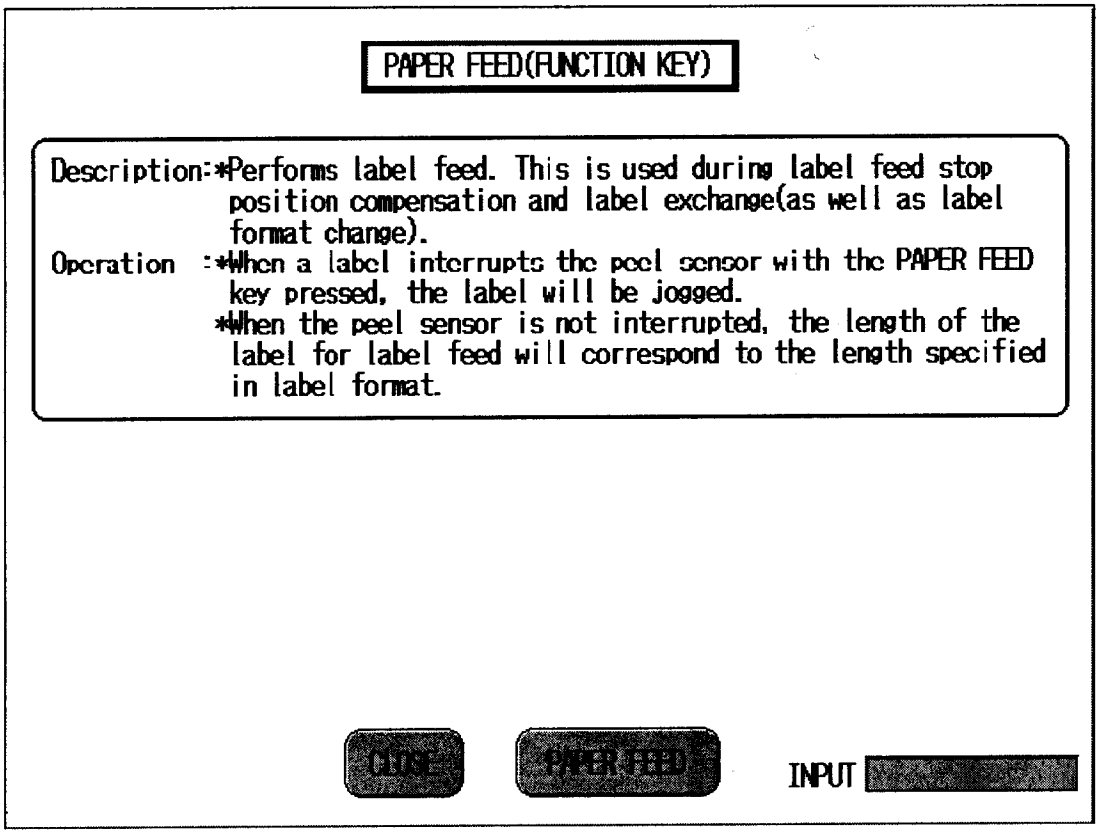
11.1 HELP SCREENS

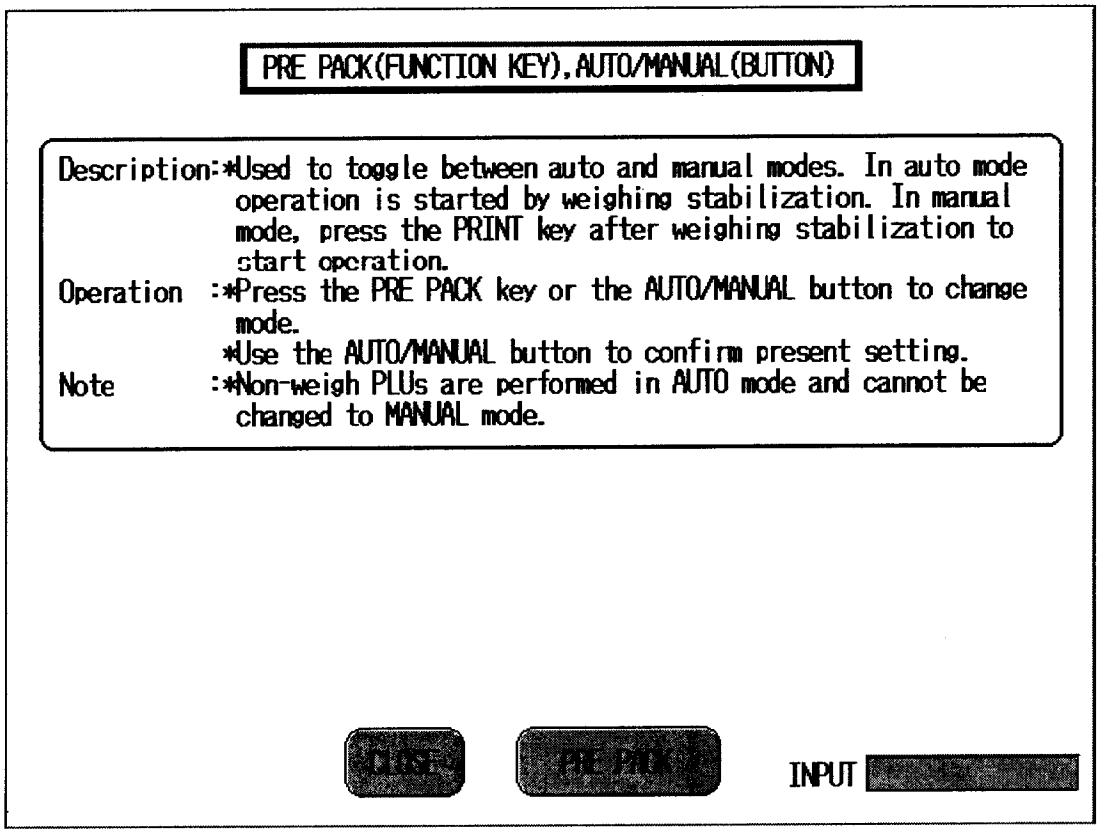


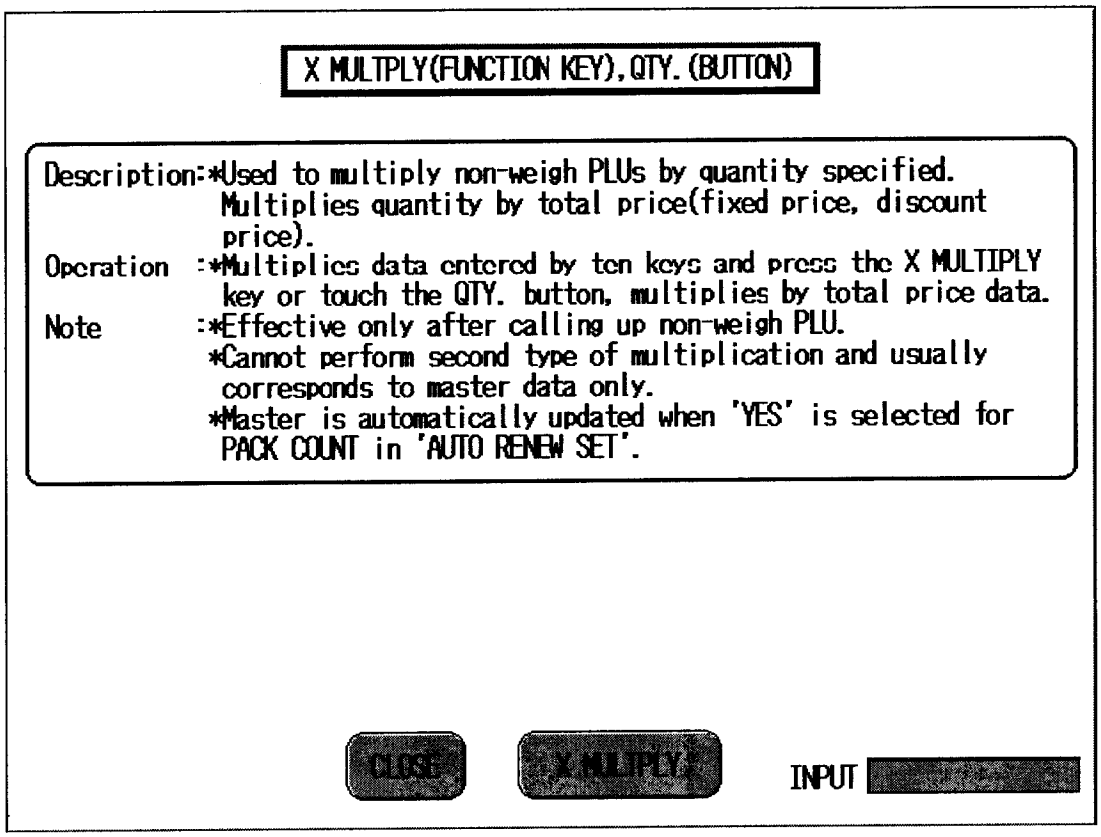


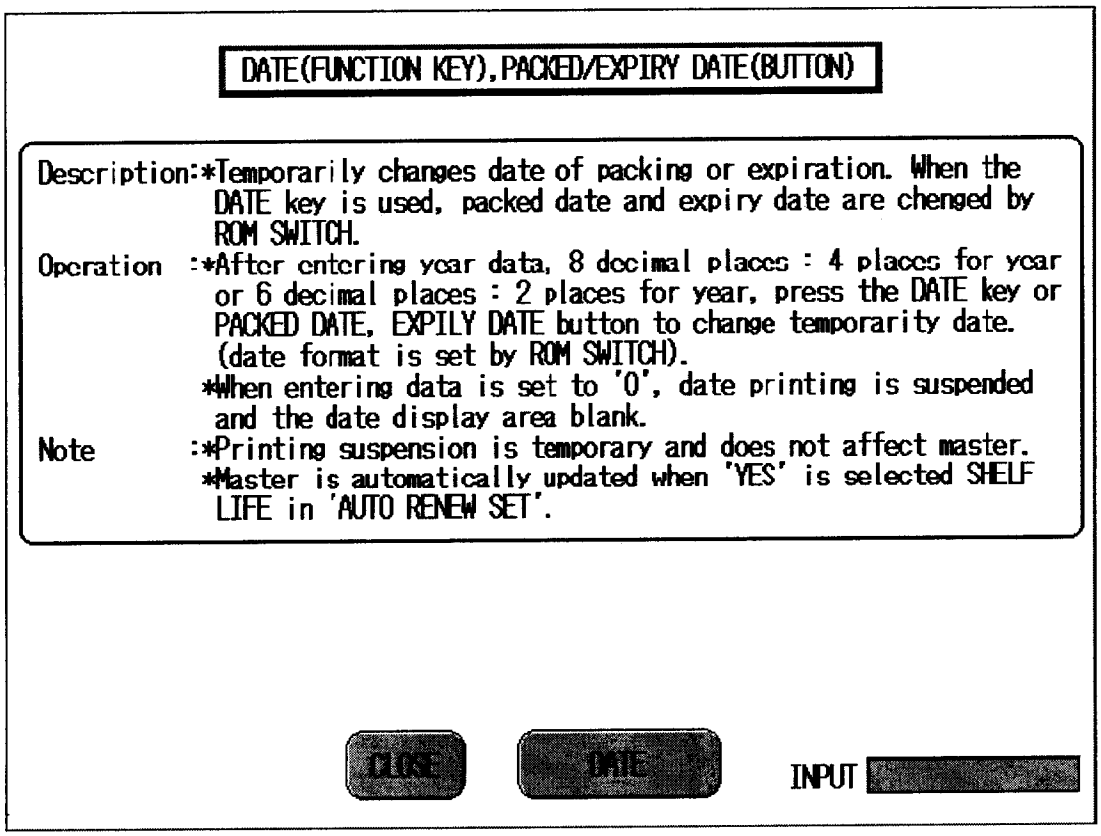

PLU(FUNCTION KEY)
Description:*Calls up preset PLU data.
Operation :*After entering data, press PLU key to call up PLU data corresponding to PLU number.
*When data is set to '0', the scale uses previous data.
*An error occurs for unregistered PLU number.
999999 will display when ROM SWITCH is set for 6 DIGIT and 9999 will display when set to 4 DIGIT.
Note :*Press this key to automatically discharge item in wrapper.
INPUT

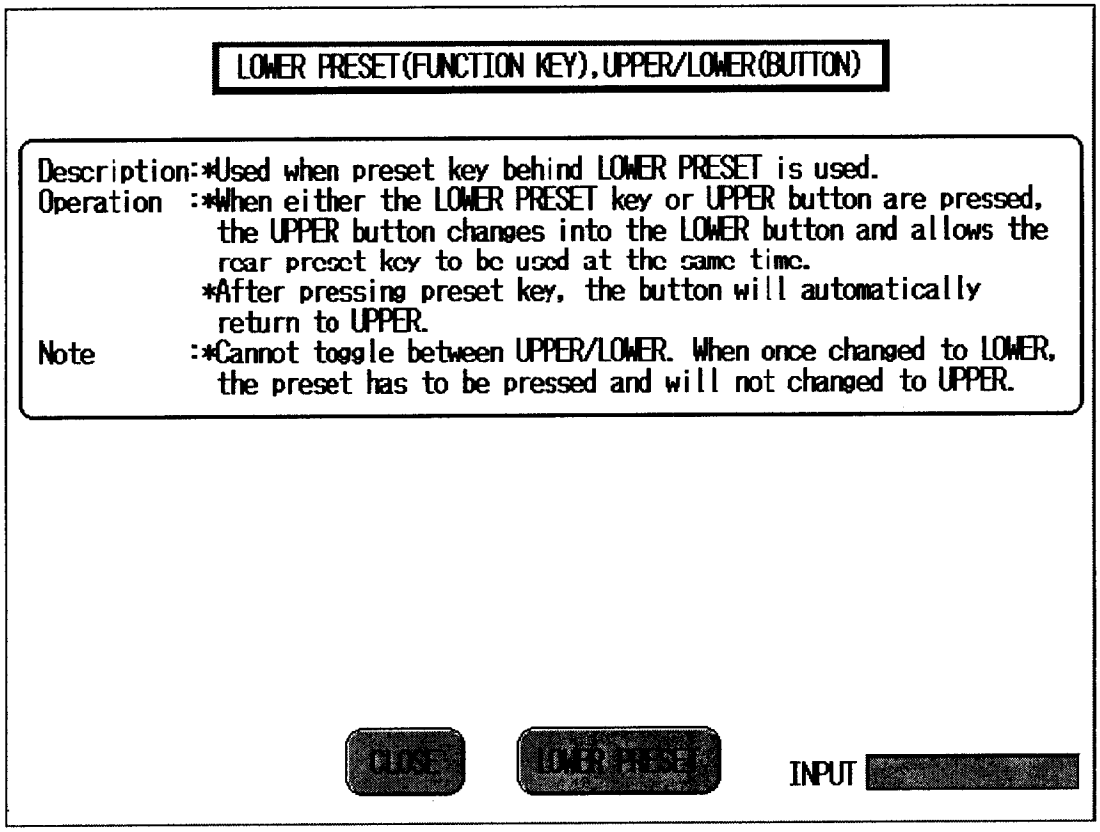

PRINT(FUNCTION KEY)
Description:*Prints label(weight, total, etc.,)
Operation :*After displaying the GRAND TOTAL menu, press the PRINT key to print GRAND TOTAL label.
*Press the PRINT key to cancel upper/lower weight error and automatically print GRAND TOTAL label at the same time.
*With call up a non-weigh PLU and the heater is up, press the PRINT key for continuous printing of fixed price labels. Press the CLR key to stop printing.
*With call up a weigh item in MANUAL mode, press the print key after weighing stabilization to execute operation (packing, labeling).
CLOSE
PRINT
INPUT

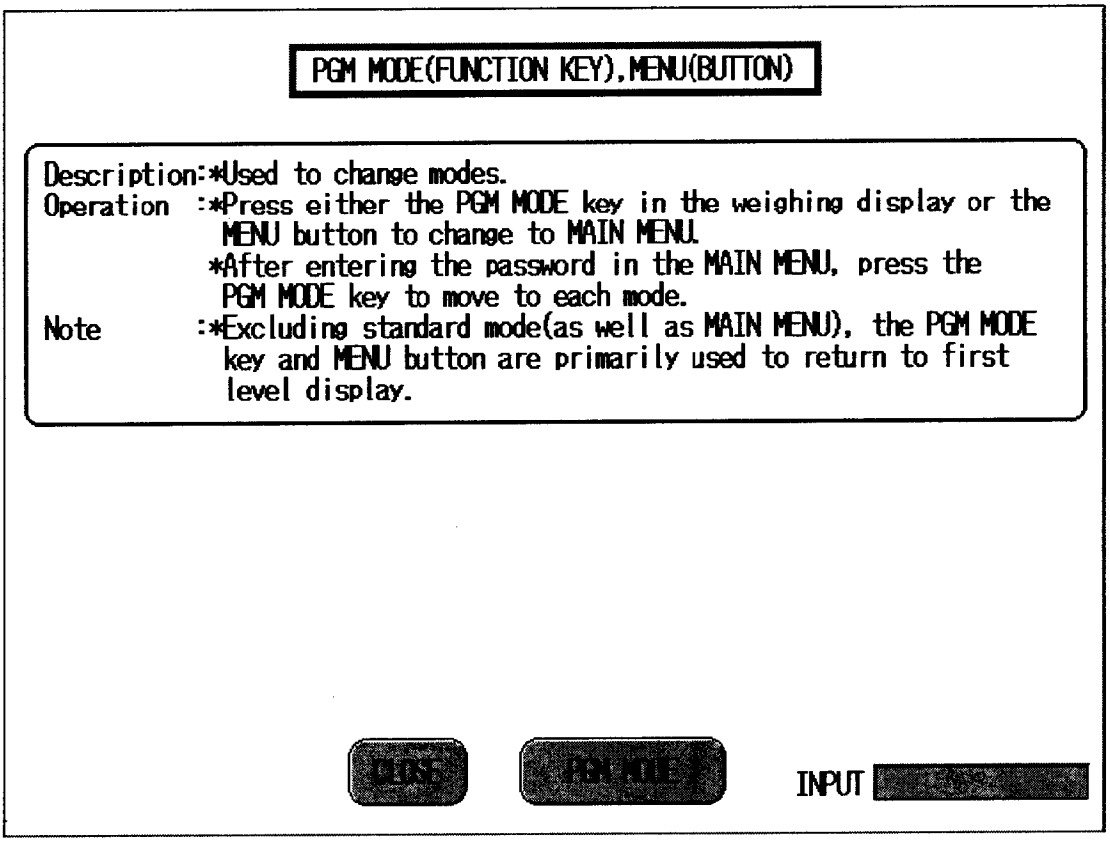

PAPER FEED(FUNCTION KEY)
Description:*Performs label feed. This is used during label feed stop position compensation and label exchange(as well as label format change).
Operation :*When a label interrupts the peel sensor with the PAPER FEED key pressed, the label will be jogged.
*When the peel sensor is not interrupted, the length of the label for label feed will correspond to the length specified in label format.
CLOSE
PAPER FEED
INPUT

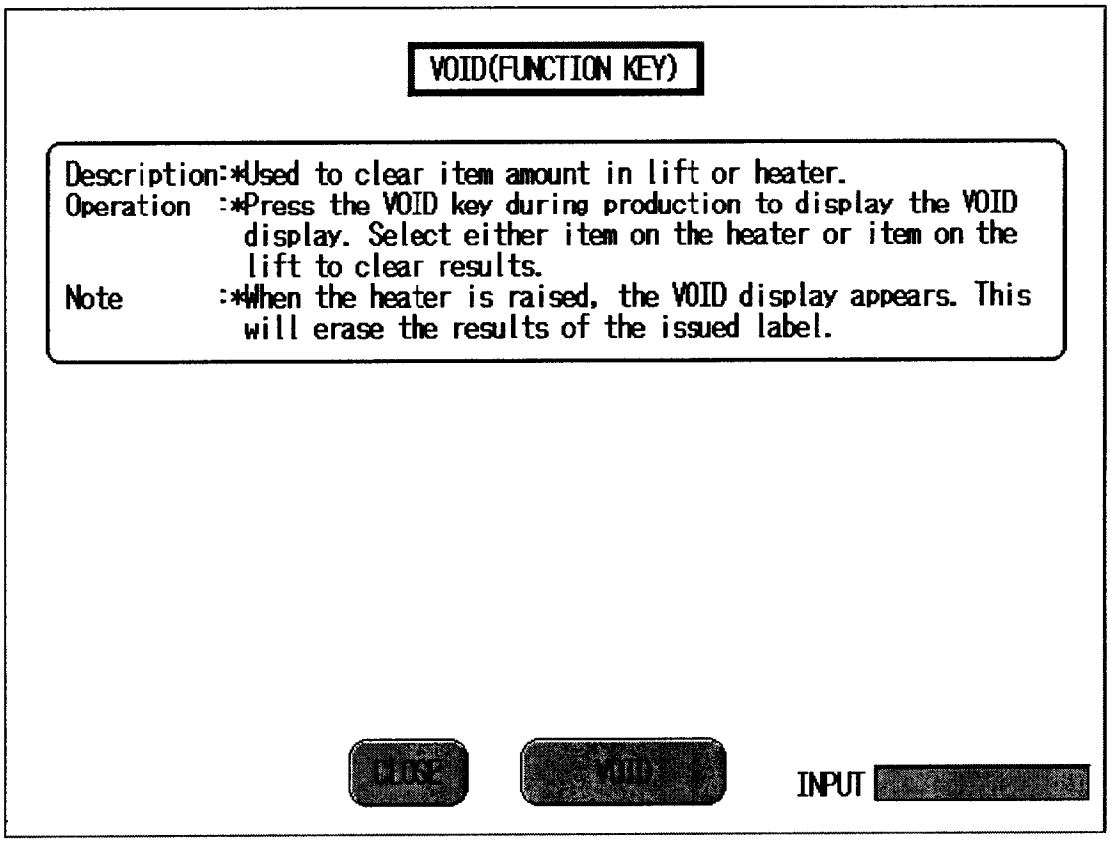

PRE PACK(FUNCTION KEY),AUTO/MANUAL(BUTTON)
Description:*Used to toggle between auto and manual modes. In auto mode operation is started by weighing stabilization. In manual mode, press the PRINT key after weighing stabilization to start operation.
Operation :*Press the PRE PACK key or the AUTO/MANUAL button to change mode.
*Use the AUTO/MANUAL button to confirm present setting.
Note :*Non-weigh PLUs are performed in AUTO mode and cannot be changed to MANUAL mode.
CLOSE
PRE PACK
INPUT

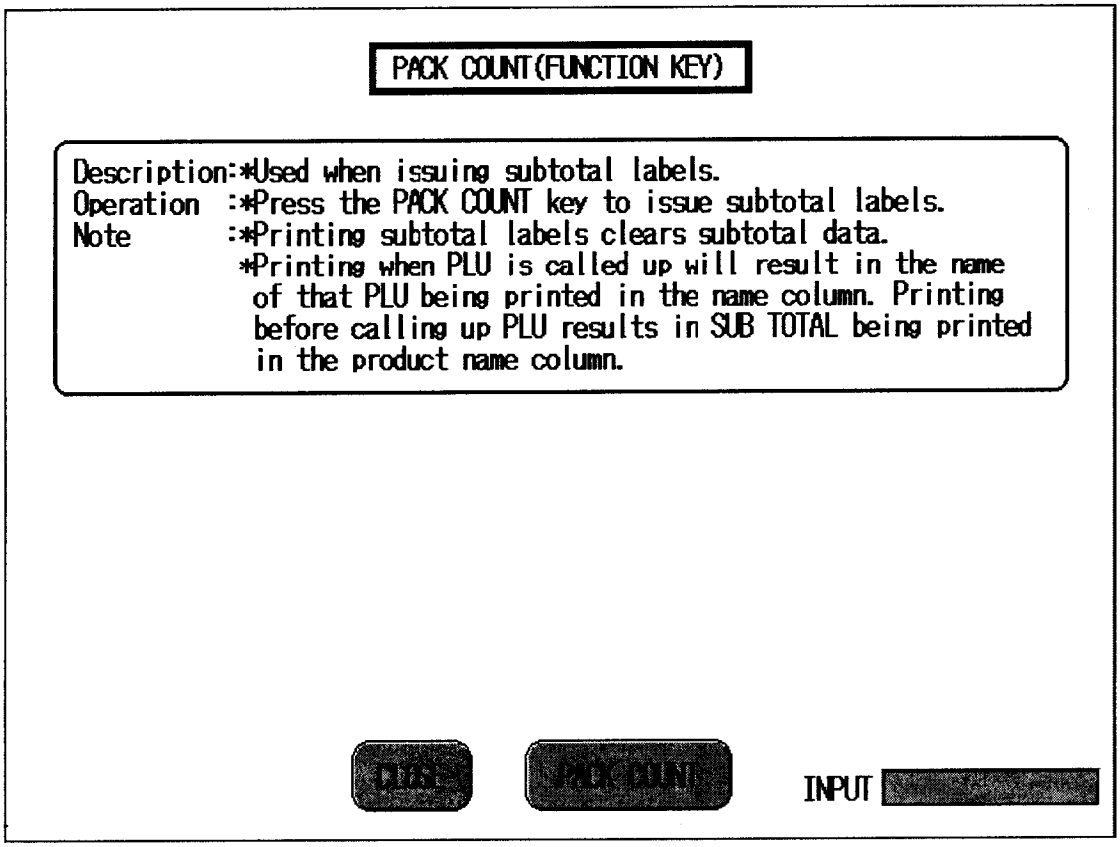

X MULTPLY(FUNCTION KEY),QTY.(BUTTON)
Description:*Used to multiply non-weigh PLUs by quantity specified. Multiplies quantity by total price(fixed price, discount price).
Operation :*Multiplies data entered by ten keys and press the X MULTIPLY key or touch the QTY. button, multiplies by total price data.
Note :*Effective only after calling up non-weigh PLU.
*Cannot perform second type of multiplication and usually corresponds to master data only.
*Master is automatically updated when 'YES' is selected for PACK COUNT in 'AUTO RENEW SET'.
CLOSE
X MULTPLY
INPUT

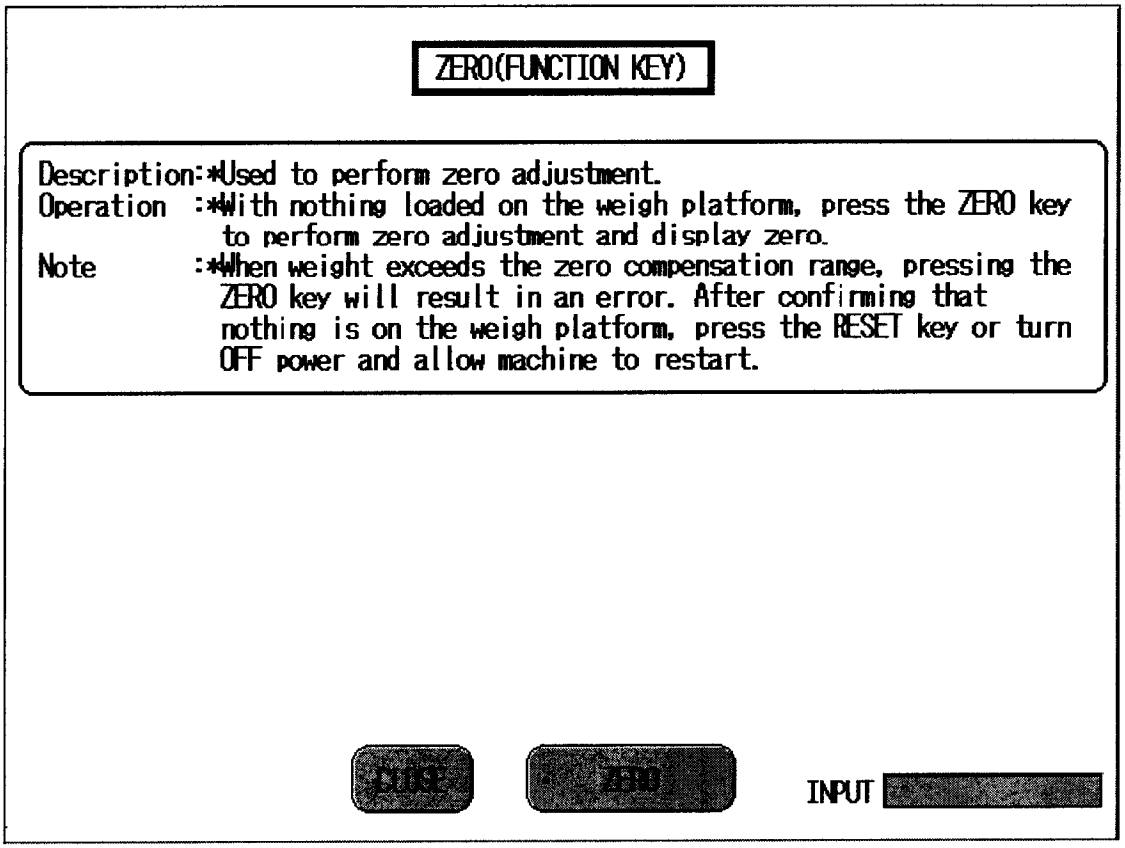

DATE(FUNCTION KEY),PACKED/EXPIRY DATE(BUTTON)
Description:*Temporarily changes date of packing or expiration. When the DATE key is used, packed date and expiry date are chenged by ROM SWITCH.
Operation :*After entering year data, 8 decimal places : 4 places for year or 6 decimal places : 2 places for year, press the DATE key or PACKED DATE, EXPILY DATE button to change temporarity date. (date format is set by ROM SWITCH).
*When entering data is set to '0', date printing is suspended and the date display area blank.
Note :*Printing suspension is temporary and does not affect master.
*Master is automatically updated when 'YES' is selected SHELF LIFE in 'AUTO RENEW SET'.
CLOSE
DATE
INPUT

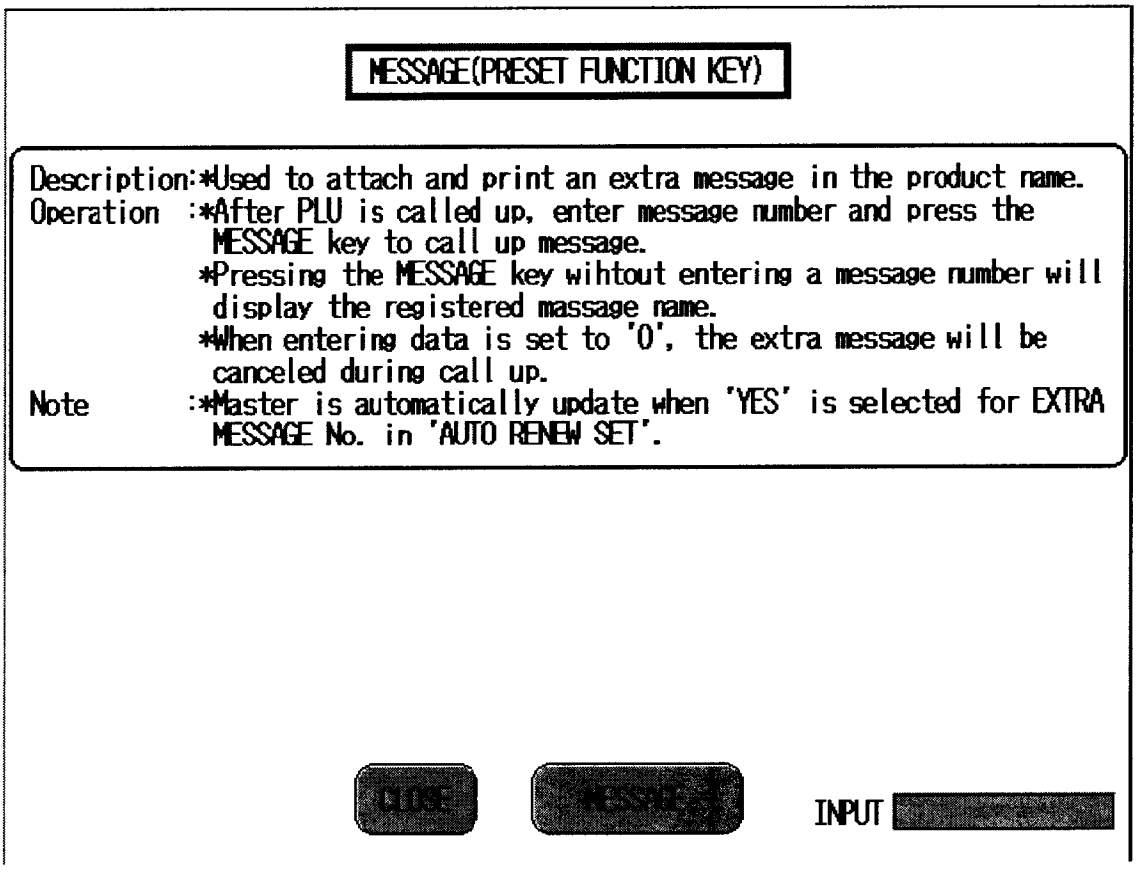

LOWER PRESET(FUNCTION KEY),UPPER/LOWER(BUTTON)
Description:*Used when preset key behind LOWER PRESET is used.
Operation :*When either the LOWER PRESET key or UPPER button are pressed, the UPPER button changes into the LOWER button and allows the rear preset key to be used at the same time.
*After pressing preset key, the button will automatically return to UPPER.
Note :*Cannot toggle between UPPER/LOWER. When once changed to LOWER, the preset has to be pressed and will not changed to UPPER.
CLOSE
LOWER PRESET
INPUT

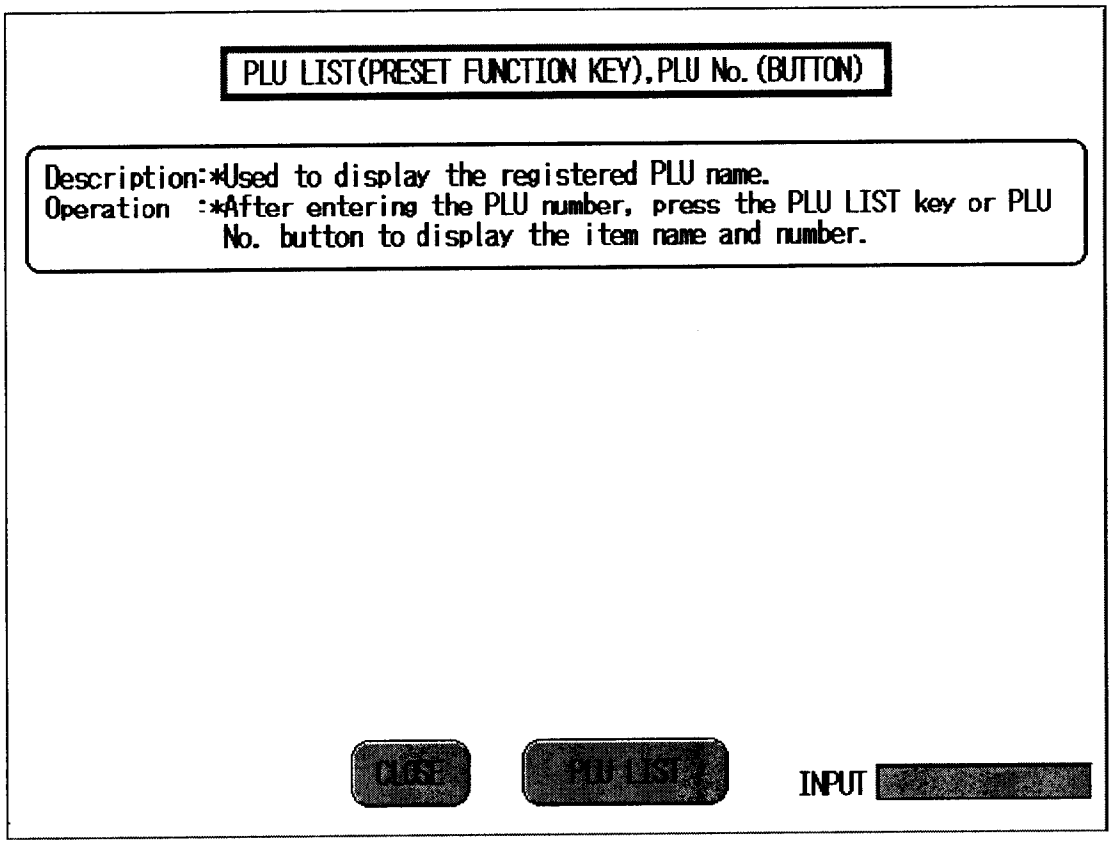

PGM MODE(FUNCTION KEY),MENU(BUTTON)
Description:*Used to change modes.
Operation :*Press either the PGM MODE key in the weighing display or the MENU button to change to MAIN MENU.
*After entering the password in the MAIN MENU, press the PGM MODE key to move to each mode.
Note :*Excluding standard mode(as well as MAIN MENU), the PGM MODE key and MENU button are primarily used to return to first level display.
CLOSE
PGM MODE
INPUT

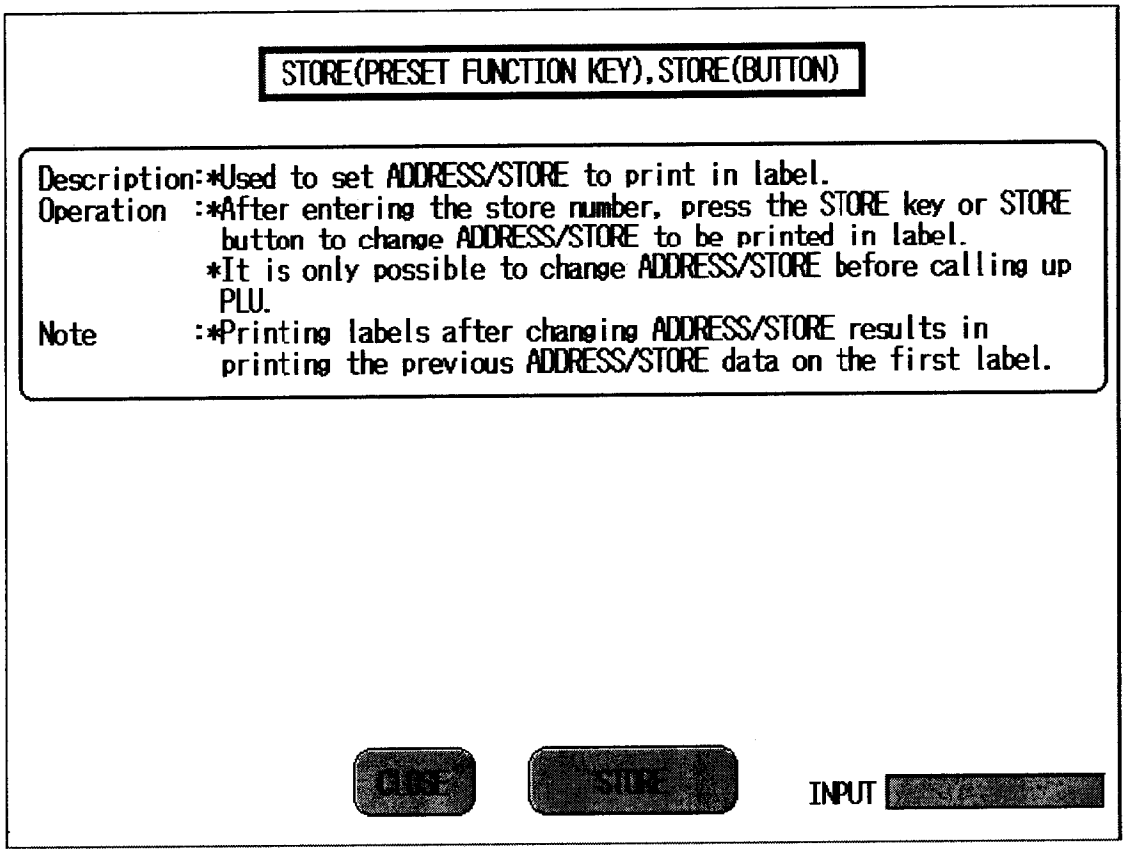

VOID(FUNCTION KEY)
Description:*Used to clear item amount in lift or heater.
Operation :*Press the VOID key during production to display the VOID display. Select either item on the heater or item on the lift to clear results.
Note :*When the heater is raised, the VOID display appears. This will erase the results of the issued label.
CLOSE
VOID
INPUT

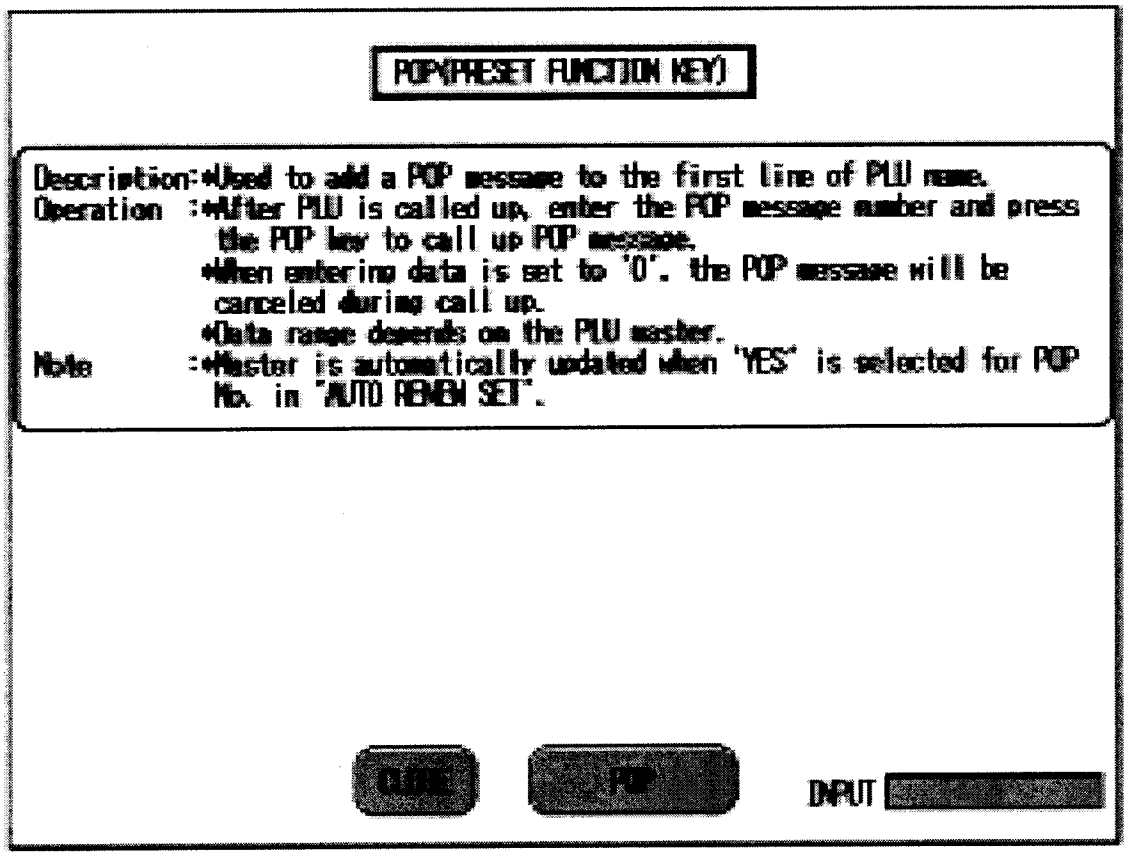

PACK COUNT(FUNCTION KEY)
Description:*Used when issuing subtotal labels.
Operation :*Press the PACK COUNT key to issue subtotal labels.
Note :*Printing subtotal labels clears subtotal data.
*Printing when PLU is called up will result in the name of that PLU being printed in the name column. Printing before calling up PLU results in SUB TOTAL being printed in the product name column.
CLOSE
PACK COUNT
INPUT

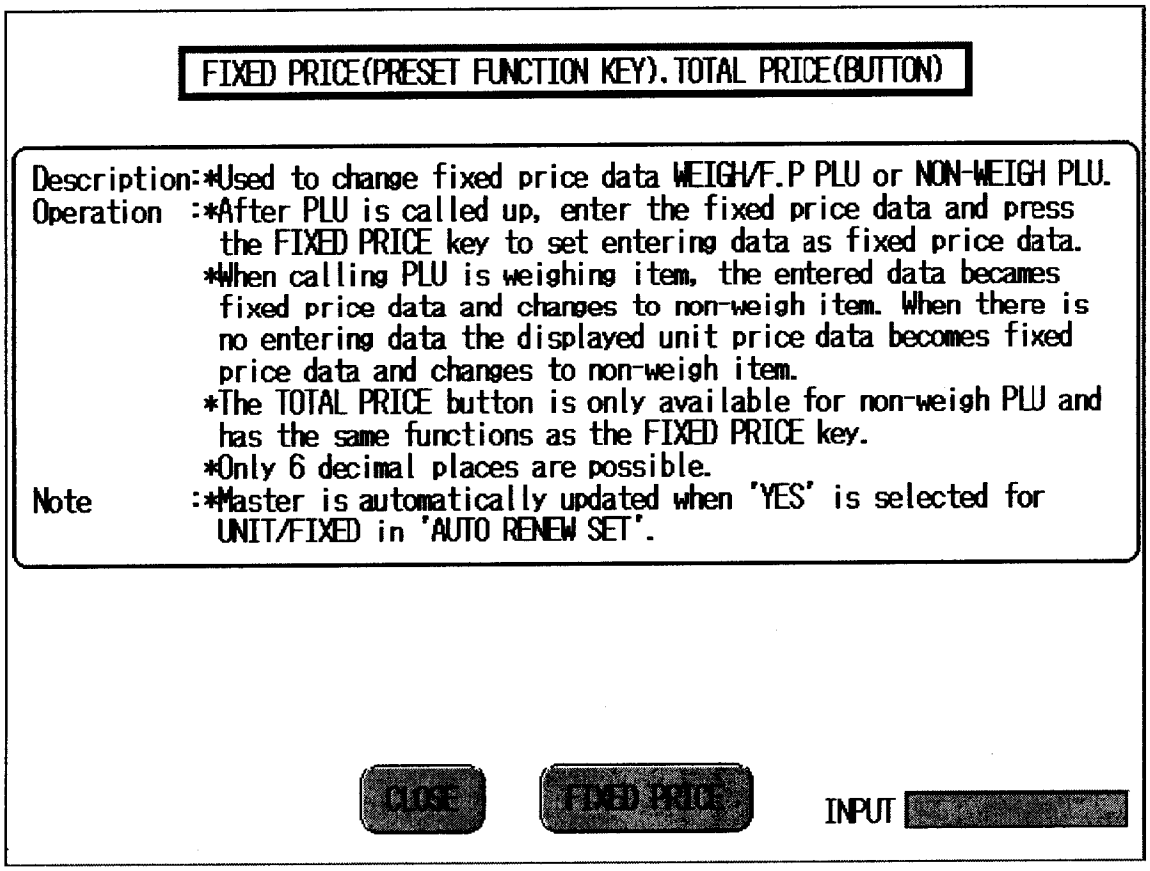

ZERO(FUNCTION KEY)
Description:*Used to perform zero adjustment.
Operation :*With nothing loaded on the weigh platform, press the ZERO key to perform zero adjustment and display zero.
Note :*When weight exceeds the zero compensation range, pressing the ZERO key will result in an error. After confirming that nothing is on the weigh platform, press the RESET key or turn OFF power and allow machine to restart.
CLOSE
ZERO
INPUT

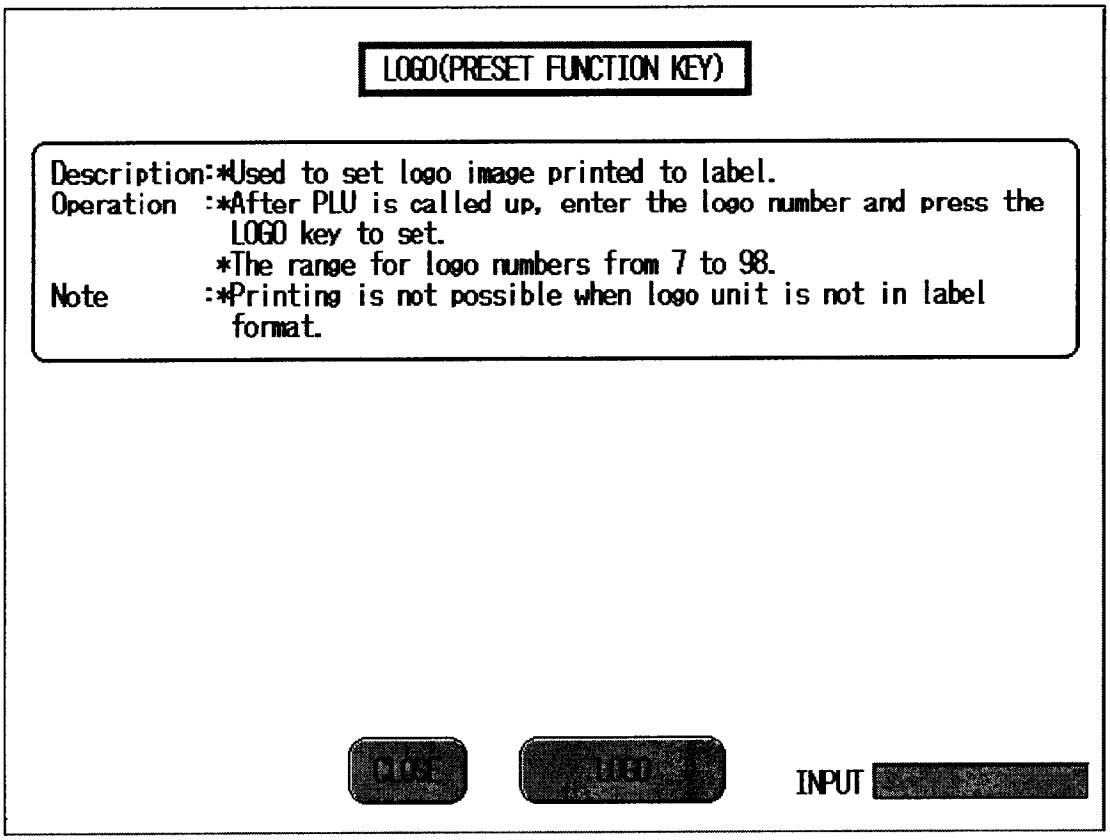

MESSAGE(PRESET FUNCTION KEY)
Description:*Used to attach and print an extra message in the product name.
Operation :*After PLU is called up, enter message number and press the MESSAGE key to call up message.
*Pressing the MESSAGE key wihtout entering a message number will display the registered massage name.
*When entering data is set to '0', the extra message will be canceled during call up.
Note :*Master is automatically update when 'YES' is selected for EXTRA MESSAGE No. in 'AUTO RENEW SET'.
CLOSE
MESSAGE
INPUT

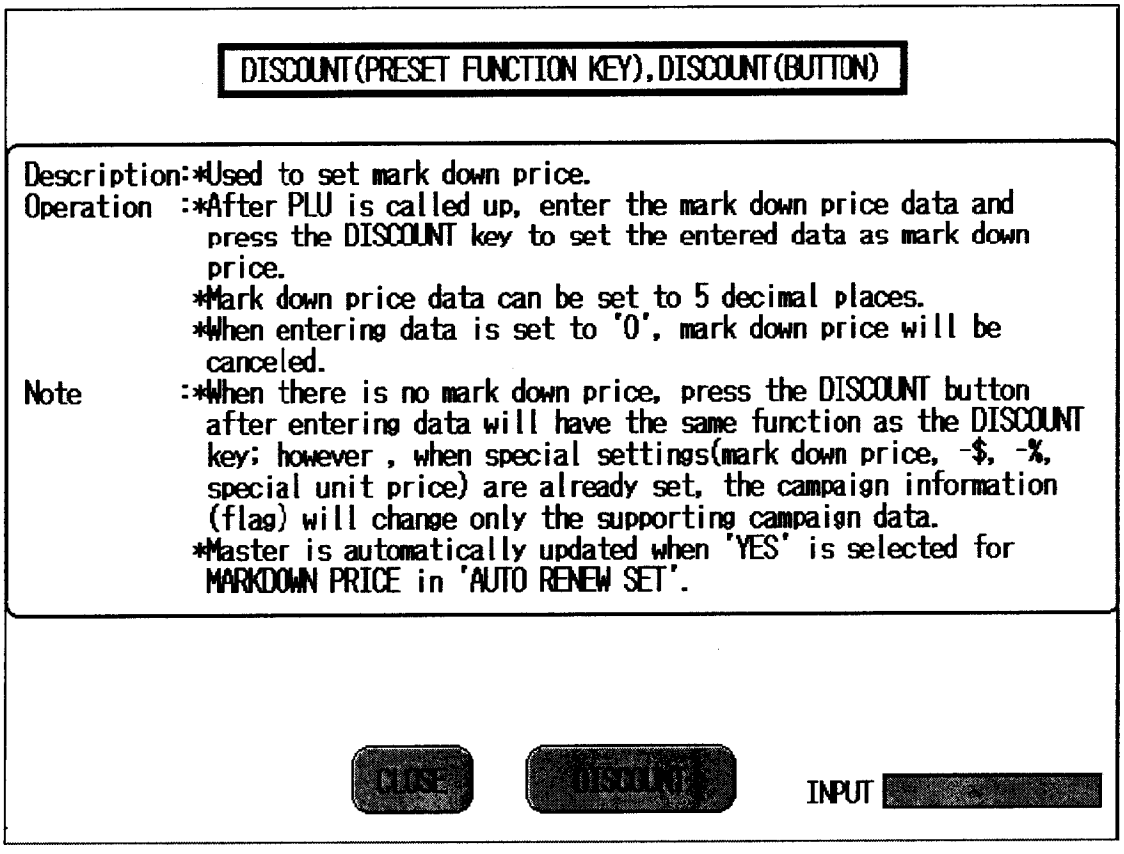

PLU LIST(PRESET FUNCTION KEY),PLU No.(BUTTON)
Description:*Used to display the registered PLU name.
Operation :*After entering the PLU number, press the PLU LIST key or PLU No. button to display the item name and number.
CLOSE
PLU LIST
INPUT

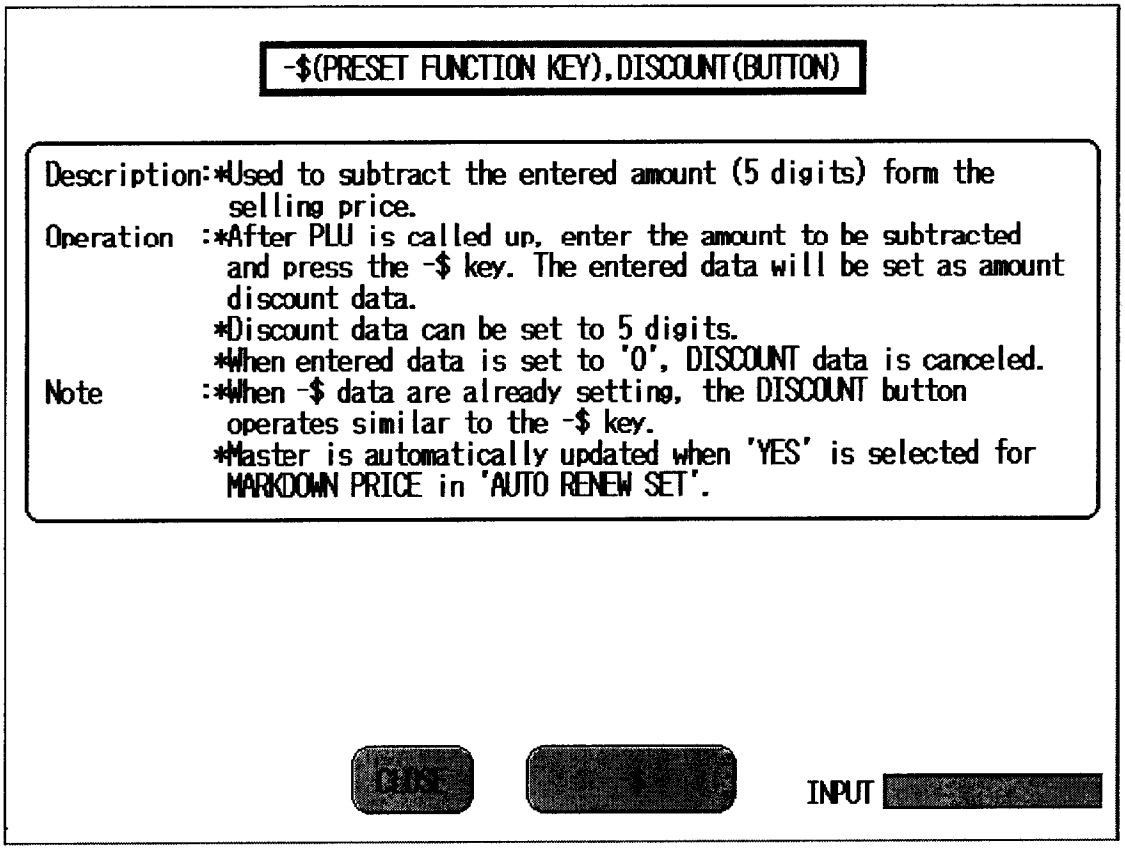

STORE(PRESET FUNCTION KEY),STORE(BUTTON)
Description:*Used to set ADDRESS/STORE to print in label.
Operation :*After entering the store number, press the STORE key or STORE button to change ADDRESS/STORE to be printed in label.
*It is only possible to change ADDRESS/STORE before calling up PLU.
Note :*Printing labels after changing ADDRESS/STORE results in printing the previous ADDRESS/STORE data on the first label.
CLOSE
STORE
INPUT

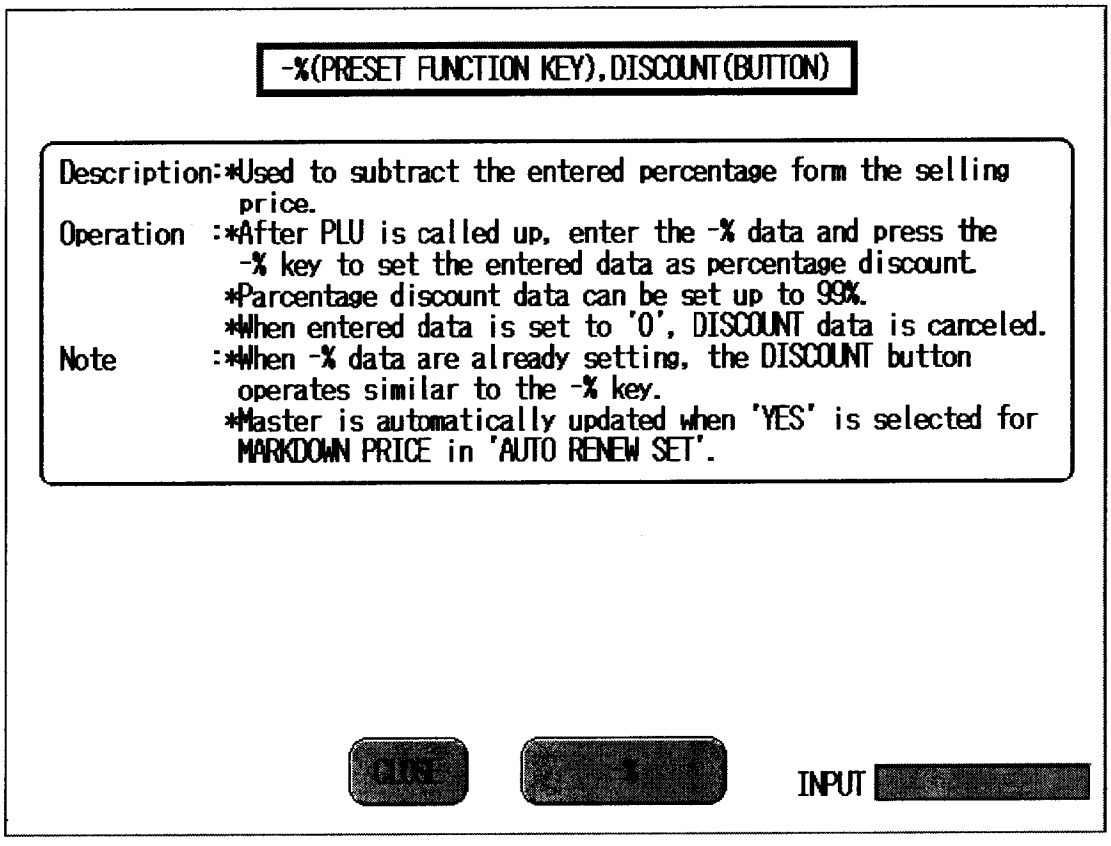

POP(PRESET FUNCTION KEY)
Description:*Used to add a POP message to the first line of PLU name.
Operation :*After PLU is called up, enter the POP message number and press the POP key to call up POP message.
*When entering data is set to '0', the POP message will be canceled during call up.
*Data range depends on the PLU master.
Note :*Master is automatically updated when 'YES' is selected for POP No. in "AUTO RENEW SET".
CLOSE
POP
INPUT

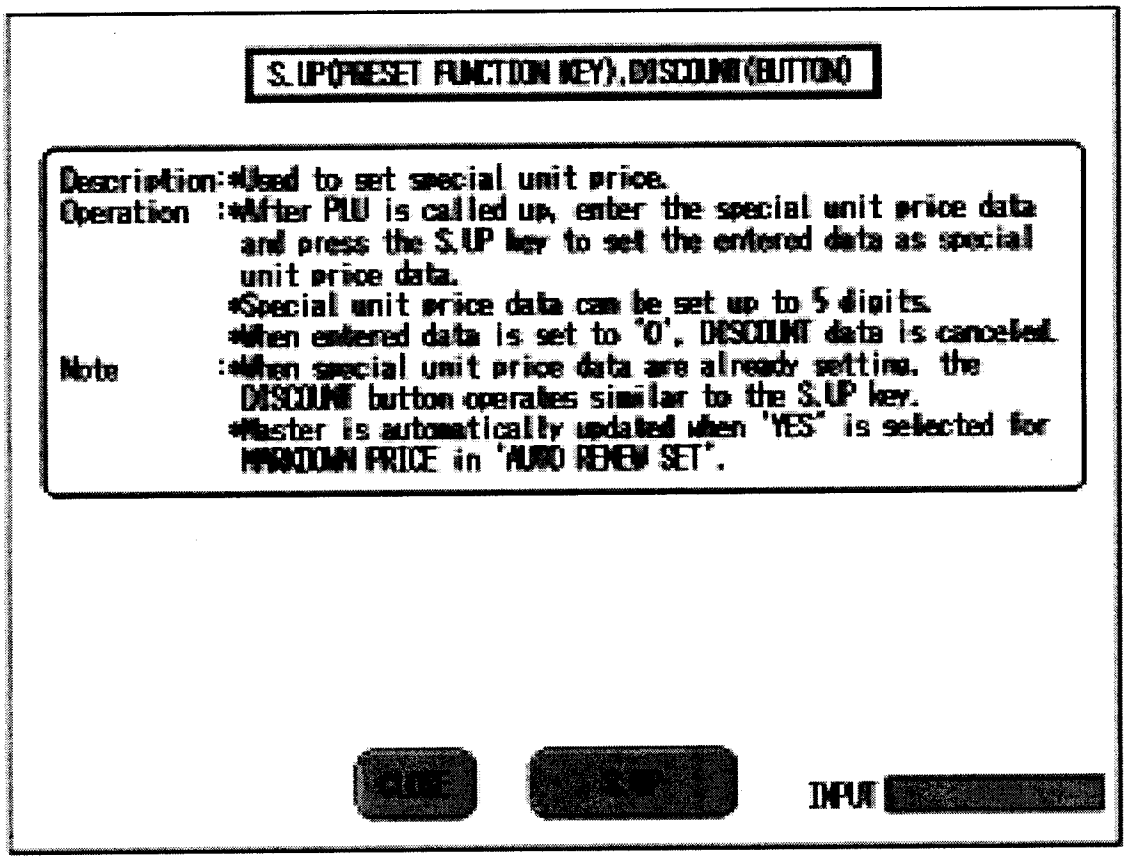

FIXED PRICE(PRESET FUNCTION KEY).TOTAL PRICE(BUTTON)
Description:*Used to change fixed price data WEIGH/F.P PLU or NON-WEIGH PLU.
Operation :*After PLU is called up, enter the fixed price data and press the FIXED PRICE key to set entering data as fixed price data.
*When calling PLU is weighing item, the entered data becames fixed price data and changes to non-weigh item. When there is no entering data the displayed unit price data becomes fixed price data and changes to non-weigh item.
*The TOTAL PRICE button is only available for non-weigh PLU and has the same functions as the FIXED PRICE key.
*Only 6 decimal places are possible.
Note :*Master is automatically updated when 'YES' is selected for UNIT/FIXED in 'AUTO RENEW SET'.
CLOSE
FIXED PRICE
INPUT

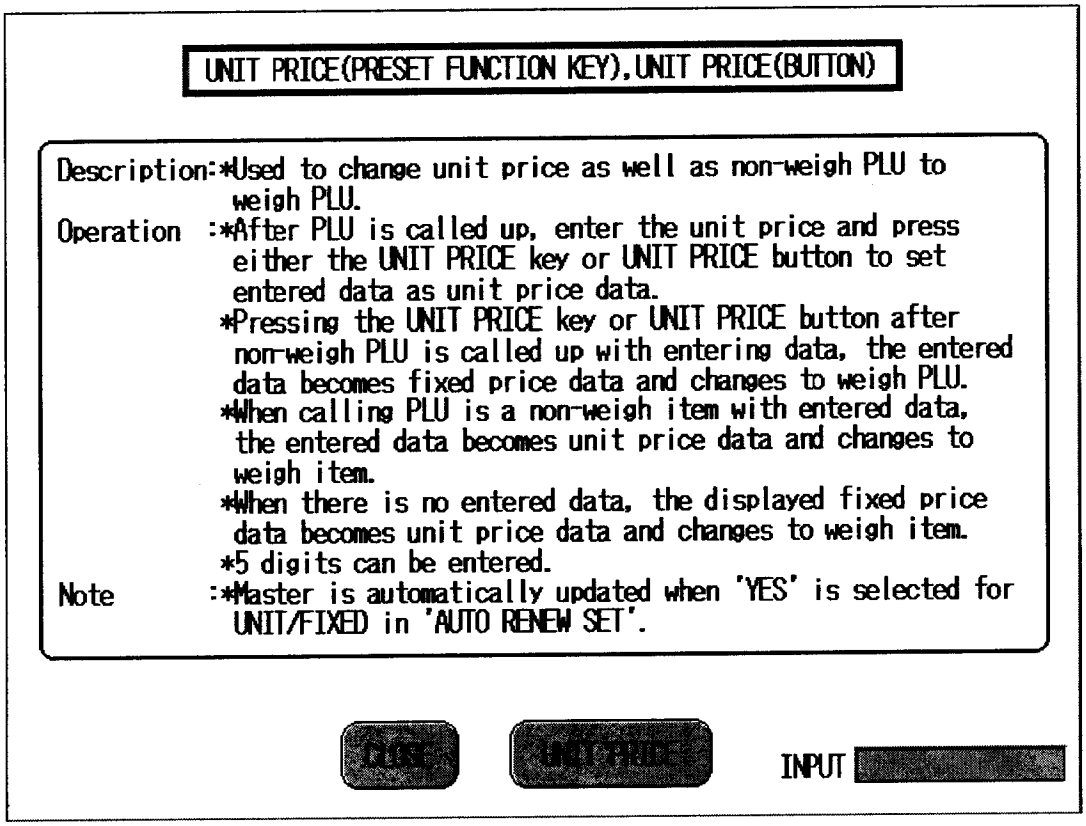

LOGO(PRESET FUNCTION KEY)
Description:*Used to set logo image printed to label.
Operation :*After PLU is called up, enter the logo number and press the LOGO key to set.
*The range for logo numbers from 7 to 98.
Note :*Printing is not possible when logo unit is not in label format.
CLOSE
INPUT

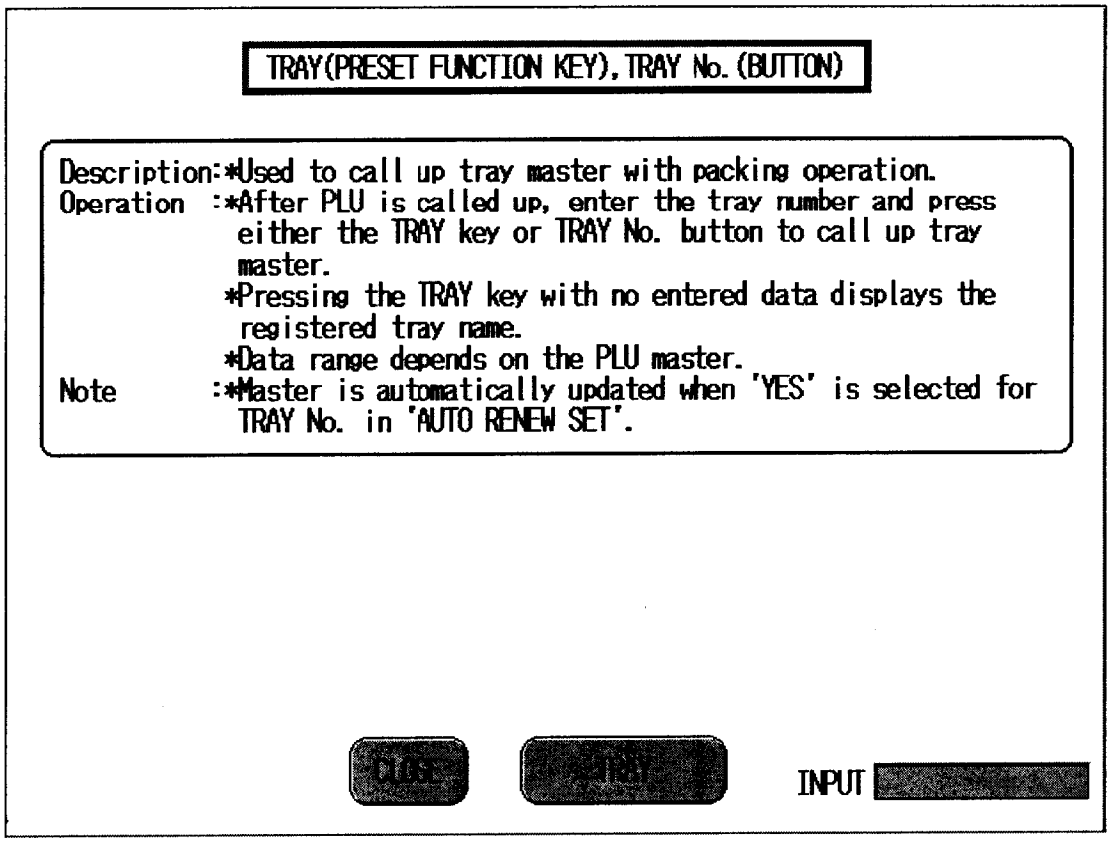

DISCOUNT(PRESET FUNCTION KEY),DISCOUNT(BUTTON)
Description:*Used to set mark down price.
Operation :*After PLU is called up, enter the mark down price data and press the DISCOUNT key to set the entered data as mark down price.
*Mark down price data can be set to 5 decimal places.
*When entering data is set to '0', mark down price will be canceled.
Note :*When there is no mark down price, press the DISCOUNT button after entering data will have the same function as the DISCOUNT key; however , when special settings(mark down price, -$, -%, special unit price) are already set, the campaign information (flag) will change only the supporting campaign data.
*Master is automatically updated when 'YES' is selected for MARKDOWN PRICE in 'AUTO RENEW SET'.
CLOSE
INPUT

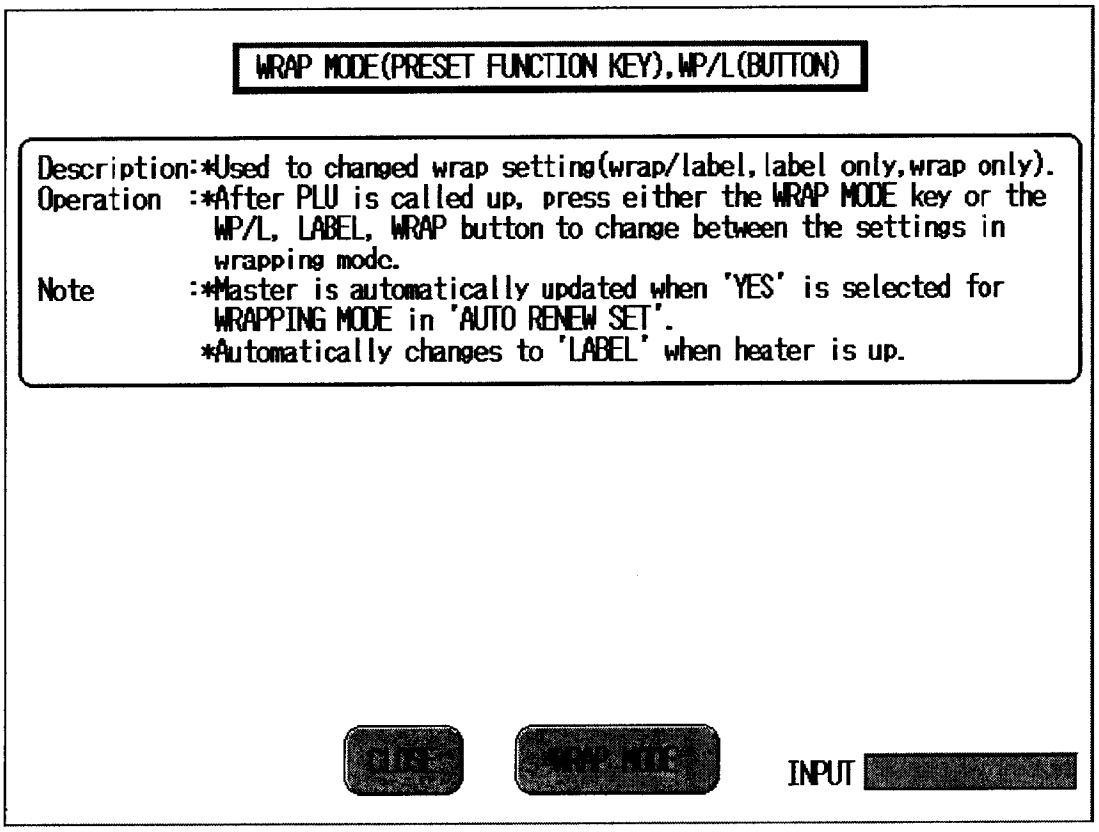

-$(PRESET FUNCTION KEY),DISCOUNT(BUTTON)
Description:*Used to subtract the entered amount (5 digits) form the selling price.
Operation :*After PLU is called up, enter the amount to be subtracted and press the -$ key. The entered data will be set as amount discount data.
*Discount data can be set to 5 digits.
*When entered data is set to '0', DISCOUNT data is canceled.
Note :*When -$ data are already setting, the DISCOUNT button operates similar to the -$ key.
*Master is automatically updated when 'YES' is selected for MARKDOWN PRICE in 'AUTO RENEW SET'.
CLOSE
INPUT

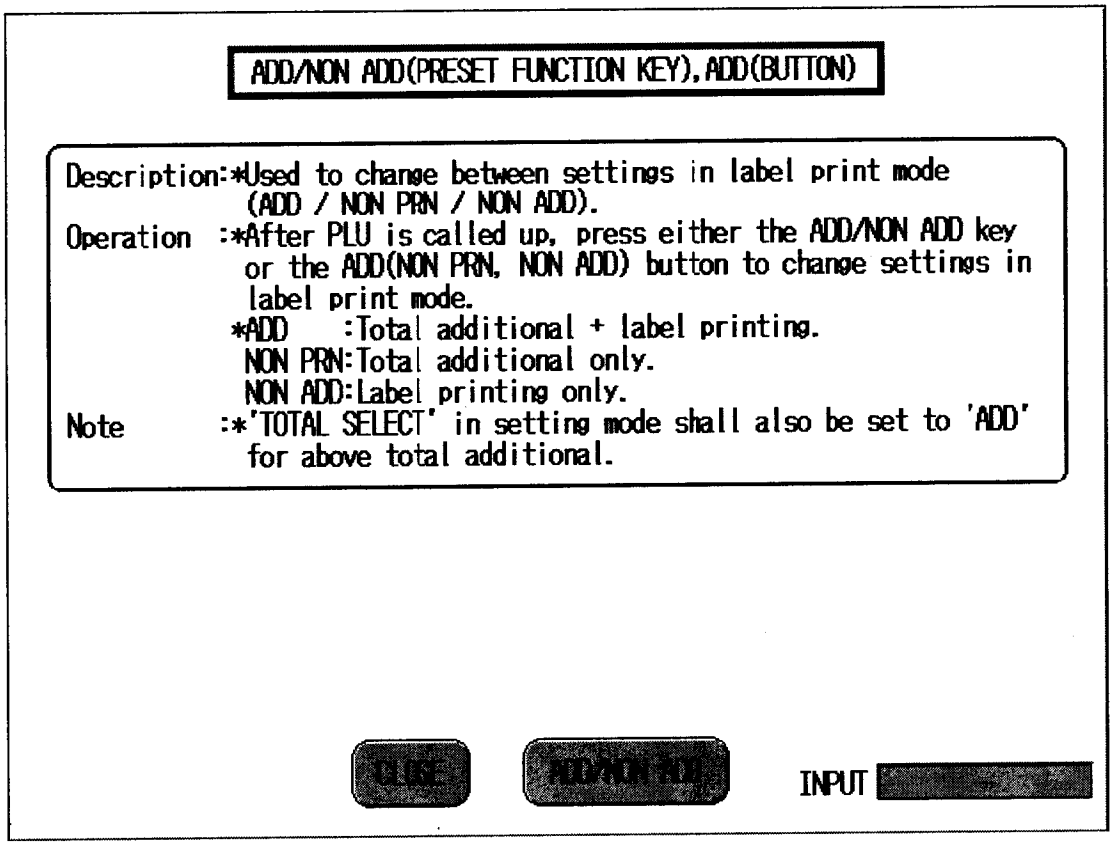

-%(PRESET FUNCTION KEY),DISCOUNT(BUTTON)
Description:*Used to subtract the entered percentage form the selling price.
Operation :*After PLU is called up, enter the -% data and press the -% key to set the entered data as percentage discount.
*Parcentage discount data can be set up to 99%.
*When entered data is set to '0', DISCOUNT data is canceled.
Note :*When -% data are already setting, the DISCOUNT button operates similar to the -% key.
*Master is automatically updated when 'YES' is selected for MARKDOWN PRICE in 'AUTO RENEW SET'.
CLOSE
INPUT

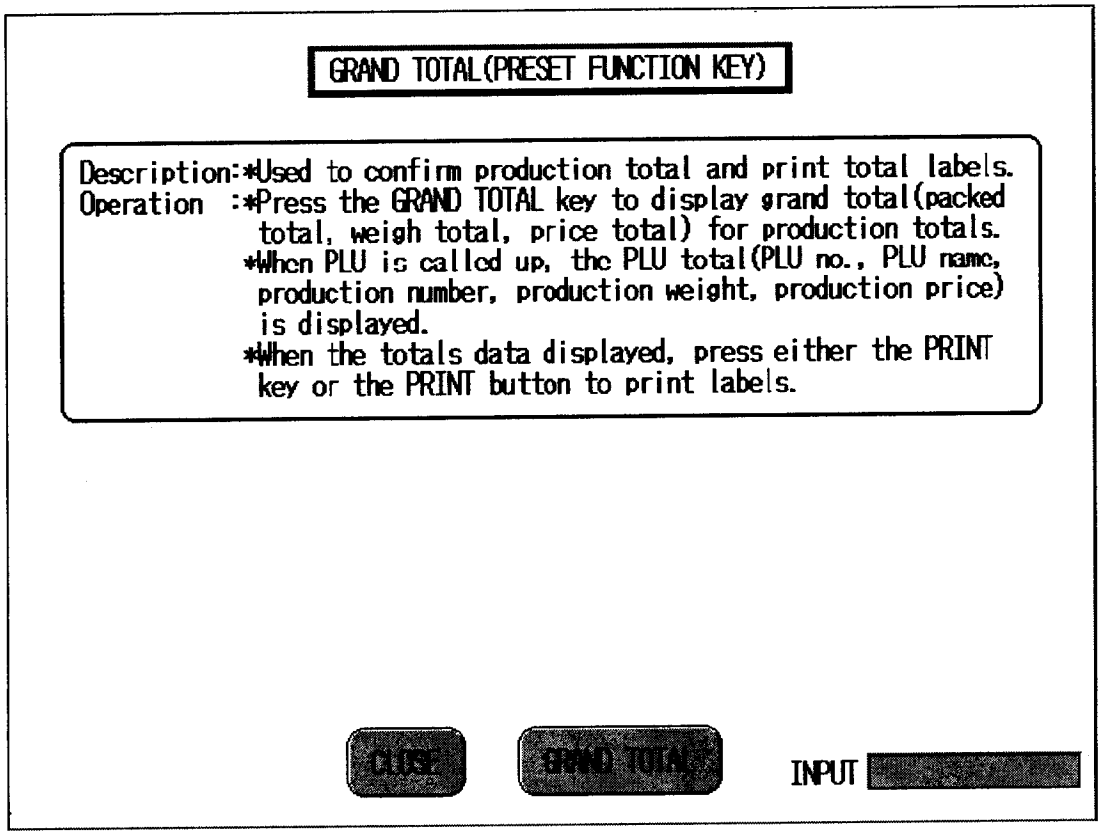

S.UP(PRESET FUNCTION KEY),DISCOUNT(BUTTON)
Description:*Used to set special unit price.
Operation :*After PLU is called up, enter the special unit price data and press the S.UP key to set the entered data as special unit price data.
*Special unit price data can be set up to 5 digits.
*When entered data is set to '0', DISCOUNT data is cancelled.
Note :*When special unit price data are already setting, the DISCOUNT button operates similar to the S.UP key.
*Master is automatically updated when 'YES' is selected for MARKDOWN PRICE in 'AUTO RENEW SET'.
CLOSE
S.UP
INPUT

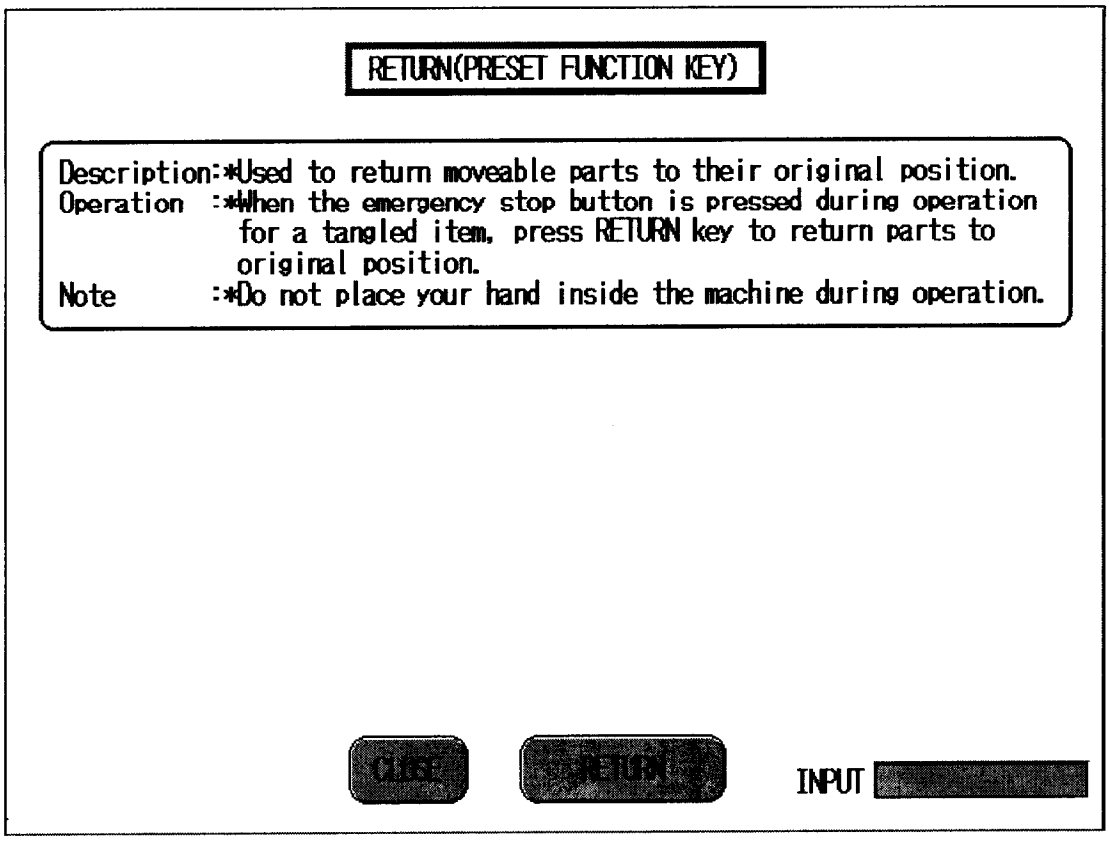

UNIT PRICE(PRESET FUNCTION KEY),UNIT PRICE(BUTTON)
Description:*Used to change unit price as well as non-weigh PLU to weigh PLU.
Operation :*After PLU is called up, enter the unit price and press either the UNIT PRICE key or UNIT PRICE button to set entered data as unit price data.
*Pressing the UNIT PRICE key or UNIT PRICE button after non-weigh PLU is called up with entering data, the entered data becomes fixed price data and changes to weigh PLU.
*When calling PLU is a non-weigh item with entered data, the entered data becomes unit price data and changes to weigh item.
*When there is no entered data, the displayed fixed price data becomes unit price data and changes to weigh item.
*5 digits can be entered.
Note :*Master is automatically updated when 'YES' is selected for UNIT/FIXED in 'AUTO RENEW SET'.
CLOSE
UNIT PRICE
INPUT

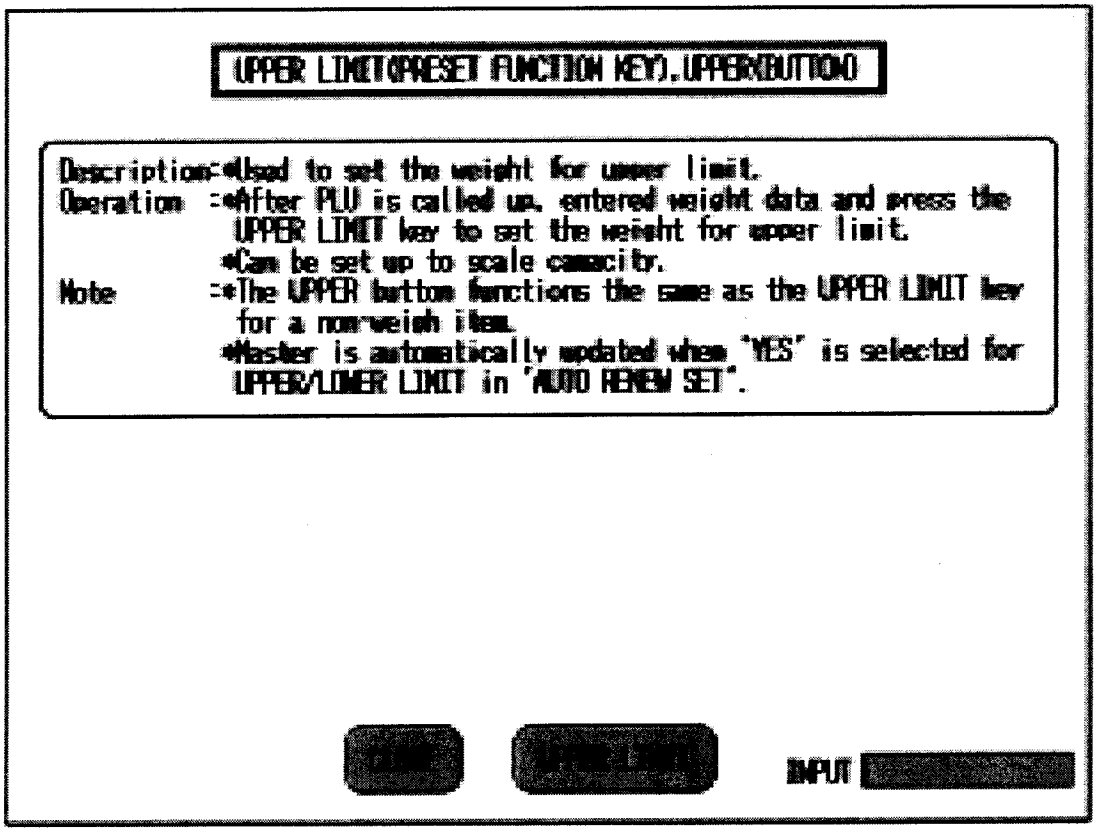

TRAY(PRESET FUNCTION KEY),TRAY No.(BUTTON)
Description:*Used to call up tray master with packing operation.
Operation :*After PLU is called up, enter the tray number and press either the TRAY key or TRAY No. button to call up tray master.
*Pressing the TRAY key with no entered data displays the registered tray name.
*Data range depends on the PLU master.
Note :*Master is automatically updated when 'YES' is selected for TRAY No. in 'AUTO RENEW SET'.
CLOSE
INPUT

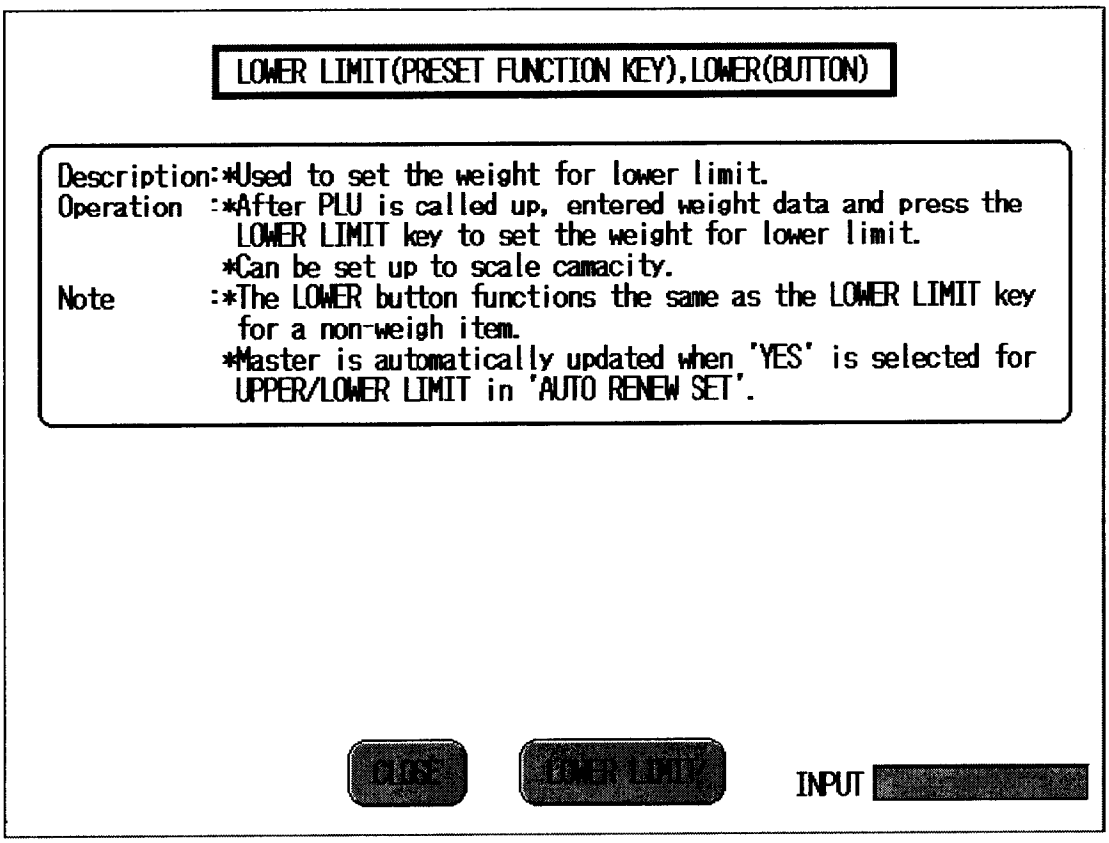

WRAP MODE(PRESET FUNCTION KEY),WP/L(BUTTON)
Description:*Used to changed wrap setting(wrap/label,label only,wrap only).
Operation :*After PLU is called up, press either the WRAP MODE key or the WP/L, LABEL, WRAP button to change between the settings in wrapping mode.
Note :*Master is automatically updated when 'YES' is selected for WRAPPING MODE in 'AUTO RENEW SET'.
*Automatically changes to 'LABEL' when heater is up.
CLOSE
INPUT

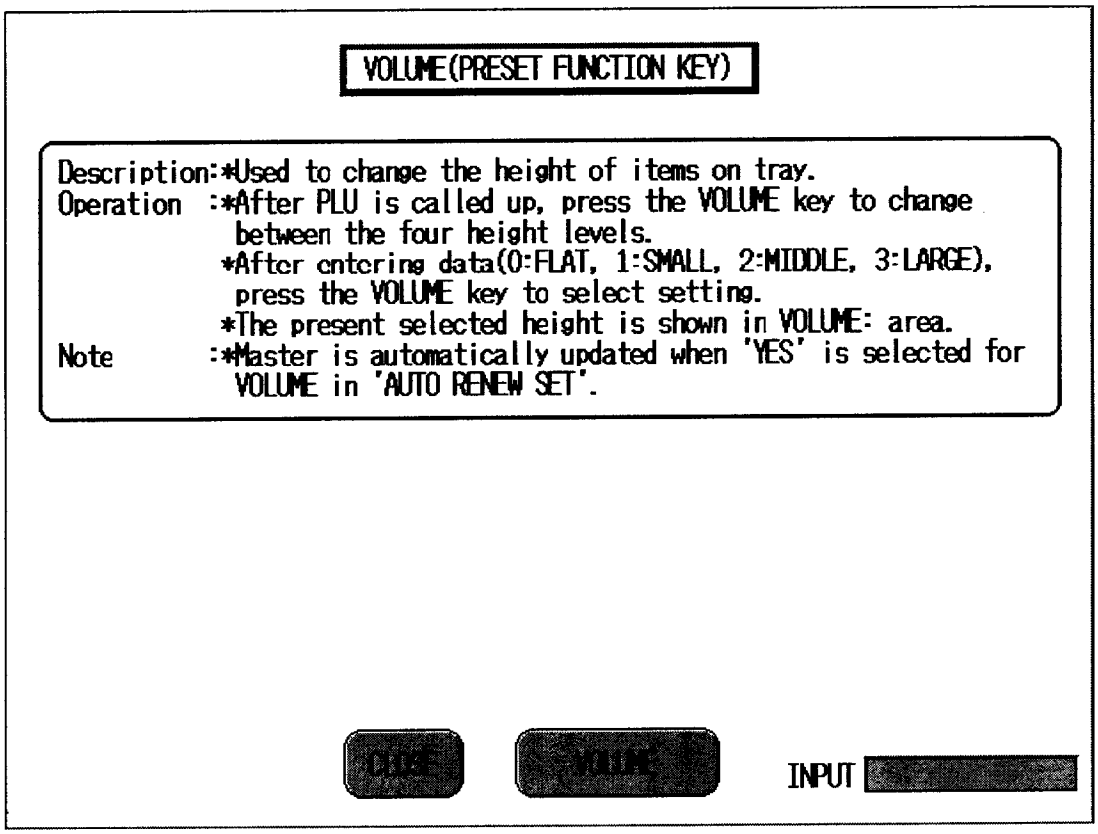

ADD/NON ADD(PRESET FUNCTION KEY),ADD(BUTTON)
Description:*Used to change between settings in label print mode (ADD / NON PRN / NON ADD).
Operation :*After PLU is called up, press either the ADD/NON ADD key or the ADD(NON PRN, NON ADD) button to change settings in label print mode.
*ADD :Total additional + label printing.
NON PRN:Total additional only.
NON ADD:Label printing only.
Note :*'TOTAL SELECT' in setting mode shall also be set to 'ADD' for above total additional.
CLOSE
ADD/NON ADD
INPUT

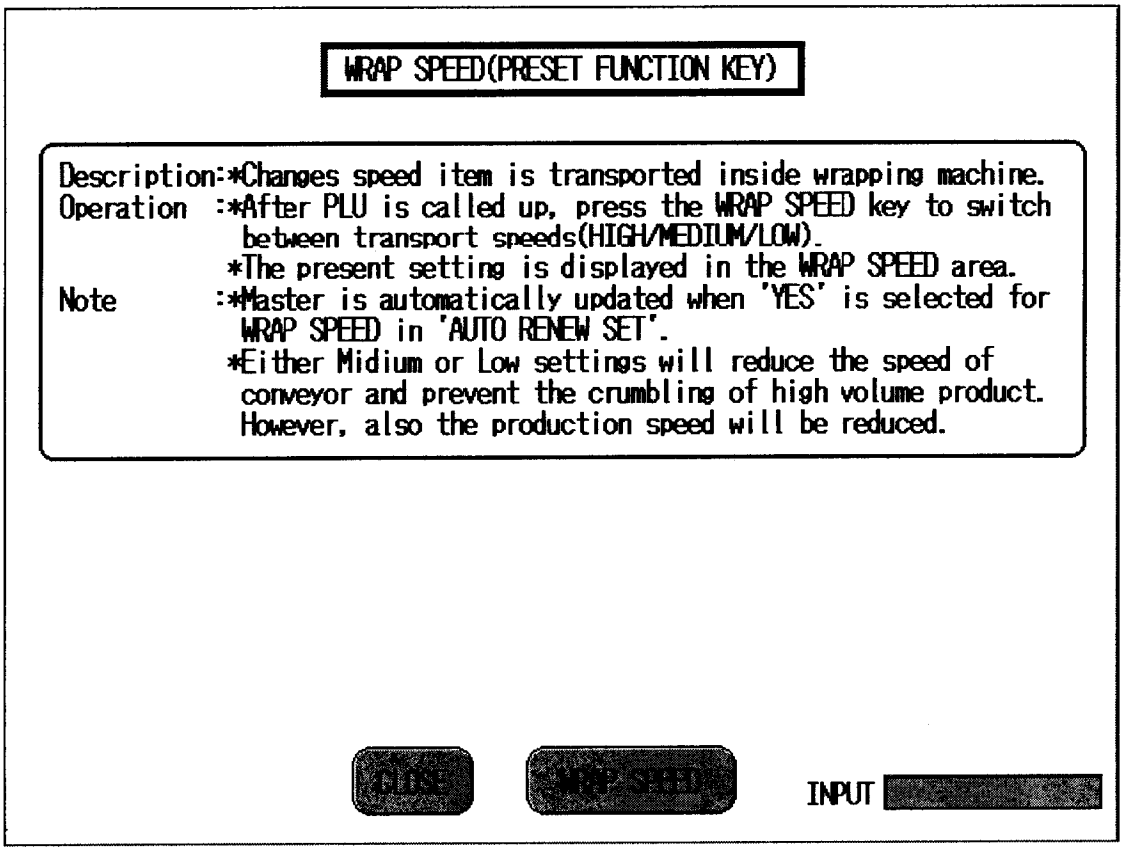

GRAND TOTAL(PRESET FUNCTION KEY)
Description:*Used to confirm production total and print total labels.
Operation :*Press the GRAND TOTAL key to display grand total(packed total, weigh total, price total) for production totals.
*When PLU is called up, the PLU total(PLU no., PLU name, production number, production weight, production price) is displayed.
*When the totals data displayed, press either the PRINT key or the PRINT button to print labels.
CLOSE
GRAND TOTAL
INPUT

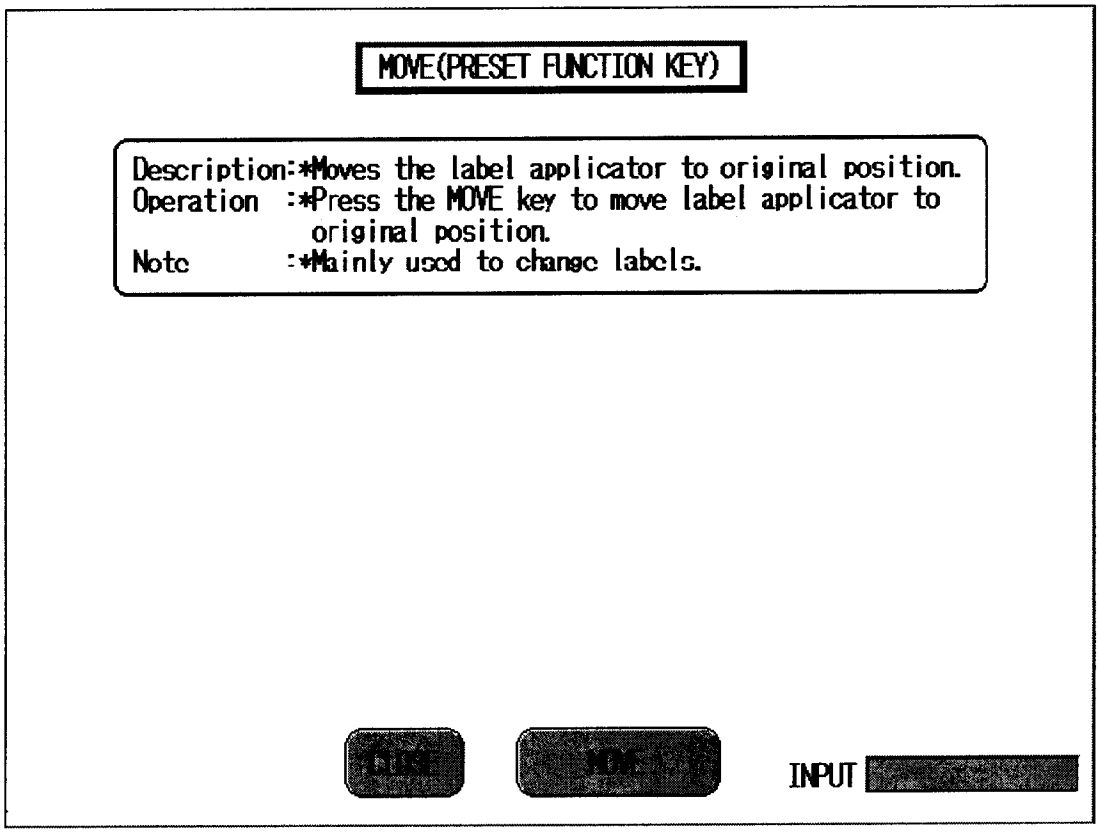

RETURN(PRESET FUNCTION KEY)
Description:*Used to return moveable parts to their original position.
Operation :*When the emergency stop button is pressed during operation for a tangled item, press RETURN key to return parts to original position.
Note :*Do not place your hand inside the machine during operation.
CLEAR
RETURN
INPUT

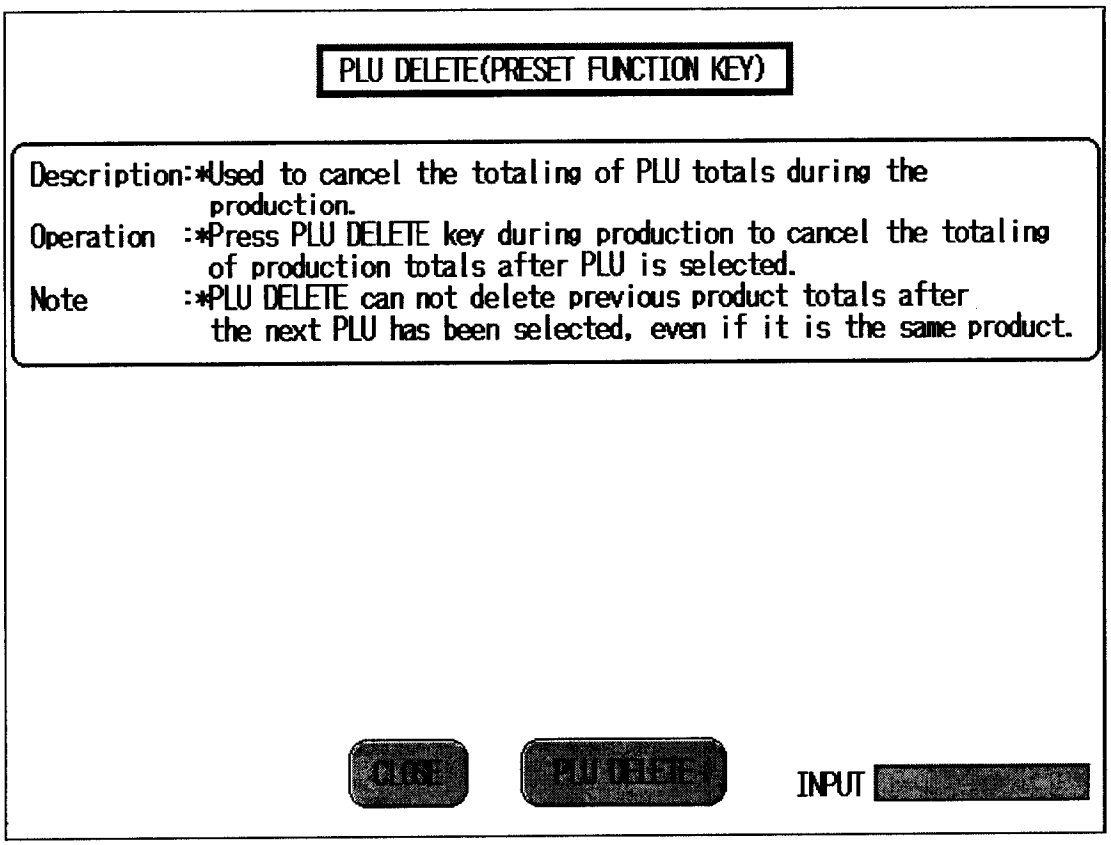

UPPER LIMIT(PRESET FUNCTION KEY),UPPER(BUTTON)
Description:*Used to set the weight for upper limit.
Operation :*After PLU is called up, entered weight data and press the UPPER LIMIT key to set the weight for upper limit.
*Can be set up to scale capacity.
Note :*The UPPER button functions the same as the UPPER LIMIT key for a non-weigh item.
*Master is automatically updated when "YES" is selected for UPPER/LOWER LIMIT in "AUTO RENEW SET".
CLEAR
INPUT

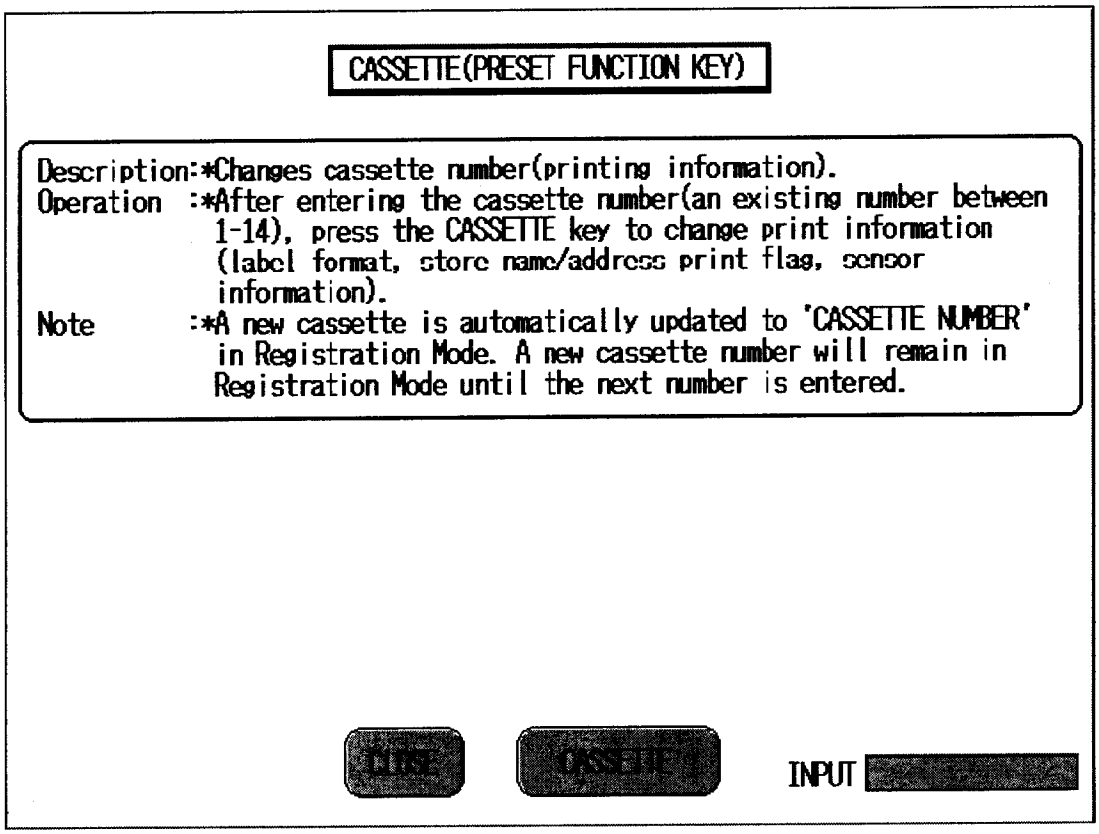

LOWER LIMIT(PRESET FUNCTION KEY),LOWER(BUTTON)
Description:*Used to set the weight for lower limit.
Operation :*After PLU is called up, entered weight data and press the LOWER LIMIT key to set the weight for lower limit.
*Can be set up to scale camacity.
Note :*The LOWER button functions the same as the LOWER LIMIT key for a non-weigh item.
*Master is automatically updated when 'YES' is selected for UPPER/LOWER LIMIT in 'AUTO RENEW SET'.
CLOSE
LOWER LIMIT
INPUT

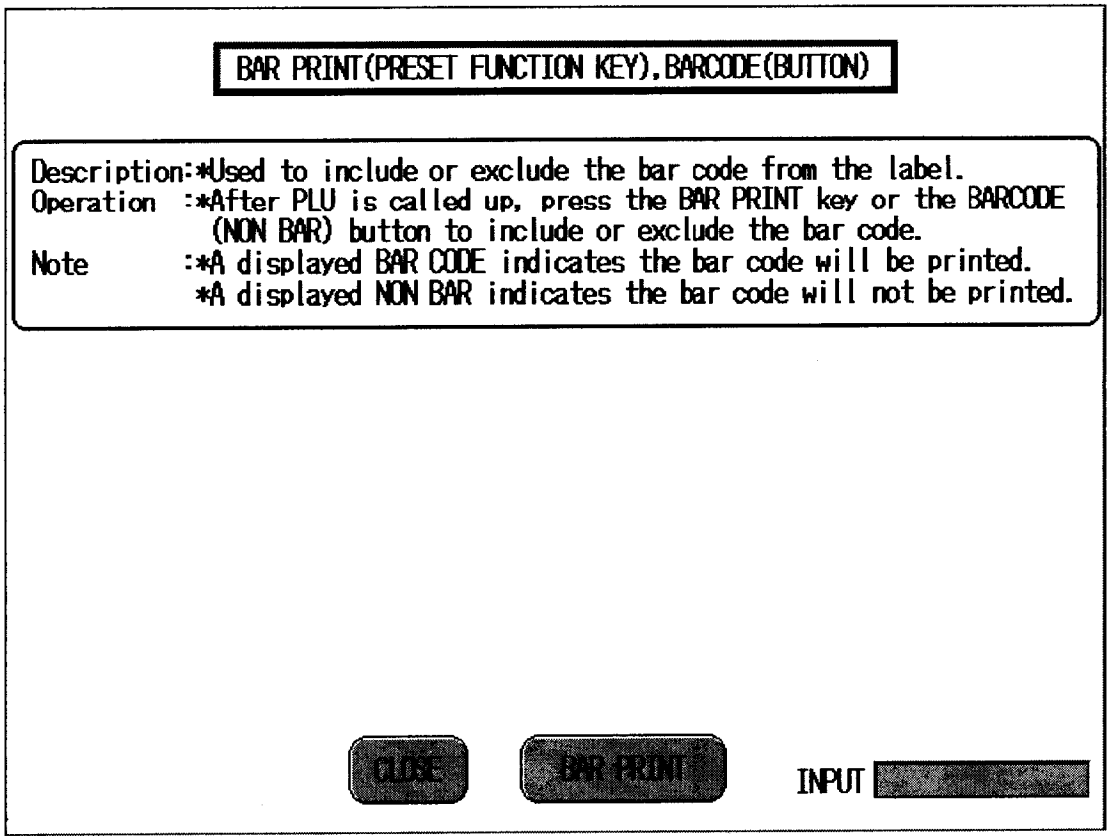

VOLUME(PRESET FUNCTION KEY)
Description:*Used to change the height of items on tray.
Operation :*After PLU is called up, press the VOLUME key to change between the four height levels.
*After entering data(0:FLAT, 1:SMALL, 2:MIDDLE, 3:LARGE), press the VOLUME key to select setting.
*The present selected height is shown in VOLUME: area.
Note :*Master is automatically updated when 'YES' is selected for VOLUME in 'AUTO RENEW SET'.
CLOSE
VOLUME
INPUT

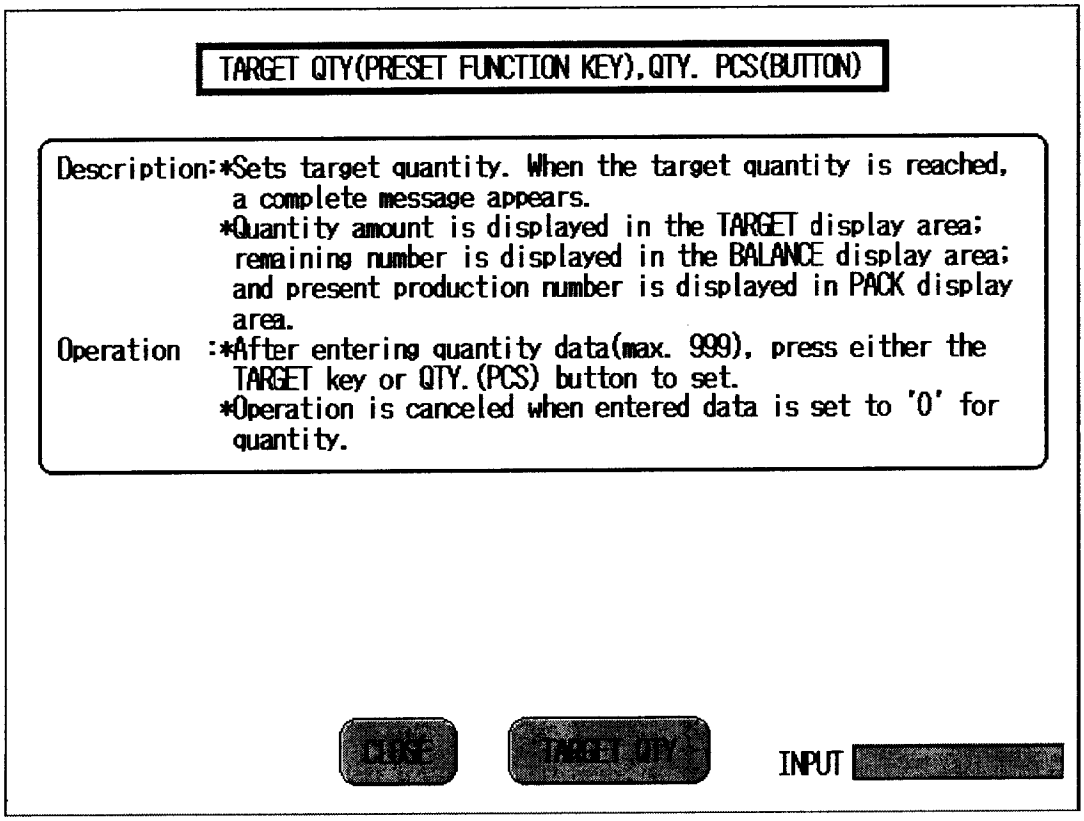

WRAP SPEED(PRESET FUNCTION KEY)
Description:*Changes speed item is transported inside wrapping machine.
Operation :*After PLU is called up, press the WRAP SPEED key to switch between transport speeds(HIGH/MEDIUM/LOW).
*The present setting is displayed in the WRAP SPEED area.
Note :*Master is automatically updated when 'YES' is selected for WRAP SPEED in 'AUTO RENEW SET'.
*Either Midium or Low settings will reduce the speed of conveyor and prevent the crumbling of high volume product. However, also the production speed will be reduced.
CLOSE
WRAP SPEED
INPUT

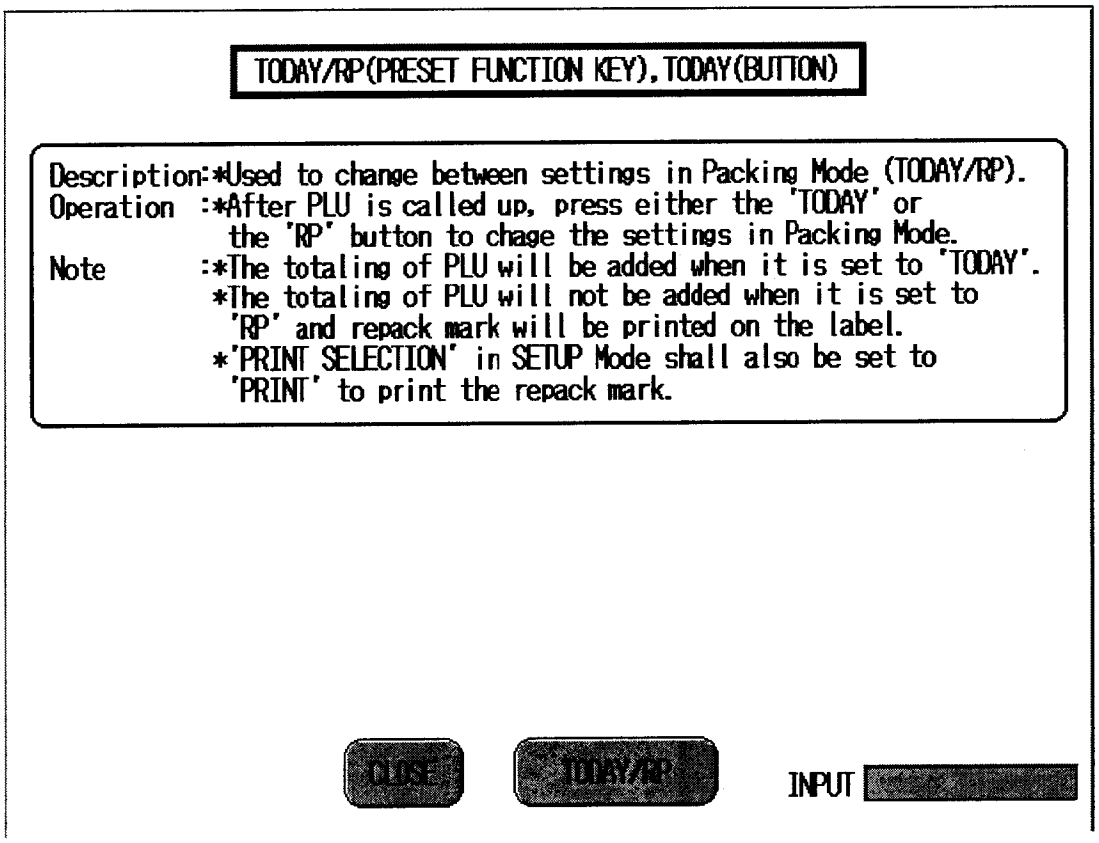

MOVE(PRESET FUNCTION KEY)
Description:*Moves the label applicator to original position.
Operation :*Press the MOVE key to move label applicator to original position.
Note :*Mainly used to change labels.
CLOSE
MOVE
INPUT


PLU DELETE(PRESET FUNCTION KEY)
Description:*Used to cancel the totaling of PLU totals during the production.
Operation :*Press PLU DELETE key during production to cancel the totaling of production totals after PLU is selected.
Note :*PLU DELETE can not delete previous product totals after the next PLU has been selected, even if it is the same product.
CLOSE
PLU DELETE #1
INPUT


CASSETTE(PRESET FUNCTION KEY)
Description:*Changes cassette number(printing information).
Operation :*After entering the cassette number(an existing number between 1-14), press the CASSETTE key to change print information (label format, store name/address print flag, sensor information).
Note :*A new cassette is automatically updated to 'CASSETTE NUMBER' in Registration Mode. A new cassette number will remain in Registration Mode until the next number is entered.
CLOSE
CASSETTE #1
INPUT


BAR PRINT(PRESET FUNCTION KEY),BARCODE(BUTTON)
Description:*Used to include or exclude the bar code from the label.
Operation :*After PLU is called up, press the BAR PRINT key or the BARCODE (NON BAR) button to include or exclude the bar code.
Note :*A displayed BAR CODE indicates the bar code will be printed.
*A displayed NON BAR indicates the bar code will not be printed.
CLOSE
BAR PRINT
INPUT


TARGET QTY(PRESET FUNCTION KEY),QTY. PCS(BUTTON)
Description:*Sets target quantity. When the target quantity is reached, a complete message appears.
*Quantity amount is displayed in the TARGET display area; remaining number is displayed in the BALANCE display area; and present production number is displayed in PACK display area.
Operation :*After entering quantity data(max. 999), press either the TARGET key or QTY.(PCS) button to set.
*Operation is canceled when entered data is set to '0' for quantity.
CLOSE
TARGET QTY
INPUT


TODAY/RP(PRESET FUNCTION KEY),TODAY(BUTTON)
Description:*Used to change between settings in Packing Mode (TODAY/RP).
Operation :*After PLU is called up, press either the 'TODAY' or
the 'RP' button to chage the settings in Packing Mode.
Note :*The totaling of PLU will be added when it is set to 'TODAY'.
*The totaling of PLU will not be added when it is set to
'RP' and repack mark will be printed on the label.
*'PRINT SELECTION' in SETUP Mode shall also be set to
'PRINT' to print the repack mark.
CLOSE
TODAY/RP
INPUT

Chapter 12

ERROR MESSAGES

12.1 ERROR MESSAGES BY NUMBER

Error message screens contain the following information: error number, cause of error and possible solutions. Following is a list of possible error messages that may occur during normal operation.

Error No.	Sub-error No.	Error Unit	Cause
1103	0000	Lift Motor	1. Foreign object caught in the motor. 2. Harness is damaged or short-circuited between P-857 and servo amplifier. 3. Harness is damaged between P-857 and the electromagnetic contactor. 4. Servo amplifier error. 5. Feeder move middle position sensor error (e.g., lift crashes into the feeder (rear)). 6. P-857 error. 7. P-858 (No. A) error
1104	0000	Front/Rear Wrapping Motor	1. Foreign object caught in the motor. 2. No existence on the original position sensor when wrapping starts. 3. Front/rear wrapping motor error. 4. Front/rear wrapping original position sensor error. 5. Front/rear wrapping front limit sensor error. 6. P-858 (No. A) error.
1104	0001	Front/Rear Wrapping Sensor	1. Front/rear wrapping original position sensor error. 2. Front/rear wrapping front limit sensor error. 3. P-858 (No. A) error
1105	0000	Left/Right Side Wrapping Motor	1. Foreign object caught in the motor. 2. No existence on the left/right wrapping original position sensor when wrapping starts. 3. Left/right wrapping motor error. 4. Left/right wrapping original position sensor error. 5. Left/right wrapping count sensor error. 6. P-857 error. 7. P-858 (No. A) error.
1106	0000	Ejection Pusher Motor	1. Foreign object caught in the motor. 2. No existence on the ejection pusher original position sensor when wrapping starts. 3. Ejection pusher motor error. 4. Ejection pusher original position sensor error. 5. Ejection pusher front limit sensor error. 6. DC brushless controller error. 7. P-857 error. 8. P-858 (No. A) error.
1106	0001	Ejection Pusher Sensor	1. Ejection pusher original position sensor error. 2. Ejection pusher front limit sensor error. 3. P-858 (No. A) error.
1106	0002	Applicator pushed by the Ejection Pusher	1. Micro-switcher in the front and rear positions of the applicator incorrectly adjusted. 2. Label applicator timing incorrectly programmed. 3. Applicator arm operation error.

Error No.	Sub-error No.	Error Unit	Cause
1107	0000	Feeder Move Motor	1. Foreign object caught in the motor. 2. Film reached the feeder move original position (rear limit sensor) without the film width being detected (when film auto-switch option is available in the specifications, this error will NOT take place.). 3. Film reached the feeder move front limit sensor without the film width being detected. 4. Feeder move motor error. 5. Film sensor sensitivity is incorrectly adjusted. 6. Film width sensor error. 7. Feeder move original position (rear limit) sensor error. 8. Feeder move front limit sensor error. 9. P-858 (No. A) error. 10. P-858 (No. B) error. 11. P-858 (No. C) error.
1107	0001	Feeder Move Sensor	1. Feeder move original position (rear limit) sensor error. 2. Feeder move front limit sensor error. 3. P-858 (No. A) error.
1108	0000	Feeder Motor	1. Foreign object caught in the motor. 2. Feeder motor error. 3. Feeder count sensor error. 4. Film cutter clutch brake error. 5. Film cutter original position sensor error. 6. P-857 error. 7. P-858 (No. A) error. 8. P-858 (No. B) error. 9. P-858 (No. C) error.
1109	0000	Infeed Motor	1. Foreign object caught in the motor. 2. Infeed motor error. 3. Infeed motor original position sensor error. 4. Stepping driver error. 5. One chip CPU (on the P-857) error. 6. P-857 error.
1109	0001	Infeed Front Motor	1. Foreign object caught in the motor. 2. Infeed front motor error. 3. Infeed front original position sensor error. 4. Stepping driver error. 5. One chip CPU (on the P-857) error. 6. P-857 error.
1110	0001	Film Top/Bottom Motor (Right)	1. Foreign object caught in the motor. 2. Film top/bottom motor (right) error. 3. Film top sensor (right) error. 4. Film bottom sensor (right) error. 5. P-858 (No. B) error.
1110	0002	Film Top/Bottom Motor (Left)	1. Foreign object caught in the motor. 2. Film top/bottom motor (left) error. 3. Film top sensor (left) error. 4. Film bottom sensor (left) error. 5. P-858 (No. C) error.

Error No.	Sub-error No.	Error Unit	Cause
1111	0001	Film Grab Motor (Right)	1. Foreign object caught in the motor. 2. Film grab motor (right) error. 3. Film grab open sensor (right) error. 4. Film grab close sensor (right) error. 5. P-858 (No. B) error.
1111	0002	Film Grab Motor (Left)	1. Foreign object caught in the motor. 2. Film grab motor (left) error. 3. Film grab open sensor (left) error. 4. Film grab close sensor (left) error. 5. P-858 (No. C) error.
1112	0000	Lift Switch Motor	1. Foreign object caught in the motor. 2. Lift switch motor error. 3. Lift switch front sensor error. 4. Lift switch middle sensor error. 5. Lift switch rear sensor error. 6. P-858 (No. B) error.
1112	0001	Lift Switch Sensor	1. Lift switch front sensor error. 2. Lift switch middle sensor error. 3. Lift switch rear sensor error. 4. The detection plate stopped between the lift switch front sensor and middle sensor. 5. The detection plate stopped between the lift switch middle sensor and rear sensor. 6. P-858 (No. B) error.
1113	0000	Applicator Move Motor	1. Foreign object caught in the motor. 2. Applicator move motor error. 3. Applicator move left/right position "0" sensor error. 4. Applicator move left/right position "1" sensor error. 5. Applicator move left/right position "2" sensor error. 6. Applicator move left/right position "3" sensor error. 7. P-857 error.
1114	0001	Film Roller Clutch Brake (Right)	1. Foreign object caught in the motor. 2. Feeder motor error. 3. Feeder count sensor error. 4. P-857 error. 5. P-858 (No. B) error.
1114	0002	Film Roller Clutch Brake (Left)	1. Foreign object caught in the motor. 2. Feeder motor error. 3. Feeder count sensor error. 4. P-857 error. 5. P-858 (No. C) error.
1115	0001	Film Cutter Clutch Brake (Right)	1. Foreign object caught in the motor. 2. Film cutter clutch brake (right) error. 3. Film cutter original position sensor (right) error. 4. Feeder motor error. 5. P-858 (No. A) error. 6. P-858 (No. B) error.

Error No.	Sub-error No.	Error Unit	Cause
1115	0002	Film Cutter Clutch Brake (Left)	1. Foreign object caught in the motor. 2. Film cutter clutch brake (left) error. 3. Film cutter original position sensor (left) error. 4. Feeder motor error. 5. P-858 (No. A) error. 6. P-858 (No. C) error.
1116	0000	Servo Amplifier	1. Harness is damaged or short-circuited between P-857 and servo amplifier. 2. Servo amplifier error. 3. P-857 error.
1116	0010	Servo Amplifier Insufficient Voltage	1. Voltage has dropped to less than 160VAC. 2. Instantaneous power failure lasting more than 15ms. 3. Voltage drops when the servo amplifier is activated due to a shortage in power capacity.
1116	0010	Servo Amplifier Insufficient Voltage	1. Voltage has dropped to less than 160VAC. 2. Instantaneous power failure lasting more than 15ms. 3. Voltage drops when the servo amplifier is activated due to a shortage in power capacity.
1116	0012	Servo Amplifier Memory Error No. 1	1. Servo amplifier built-in PC board (H-C01) defective.
1116	0013	Servo Amplifier Clock Error	1. Servo amplifier built-in PC board (H-C01) defective.
1116	0014	Servo Amplifier Watchdog	1. Servo amplifier built-in PC board (H-C01) defective.
1116	0015	Servo Amplifier Memory Error No. 2	1. Servo amplifier built-in PC board (H-C01) defective.
1116	0016	Servo Amplifier Sensor Error No. 1	1. Detector connector is disconnected. 2. Motor detector internal mechanism is defective. 3. Detector cable is damaged or short-circuited.
1116	0017	Servo Amplifier PC Board Error	1. Servo amplifier built-in PC board (H-C01) defective.
1116	0019	Servo Amplifier Memory Error No. 3	1. Servo amplifier built-in PC board (H-C01) defective.
1116	0020	Servo Amplifier Sensor Error No. 2	1. Detector connector is disconnected. 2. Detector cable is damaged or short-circuited.
1116	0024	Servo Amplifier Output Grounding	1. UVW of servo amplifier output is grounded.
1116	0025	Servo Amplifier Absolute Position Lost	1. Servo amplifier built-in super condenser voltage drop. 2. Servo amplifier built-in battery voltage drop. 3. Battery cable or battery defective.

Error No.	Sub-error No.	Error Unit	Cause
1116	0030	Servo Amplifier Regeneration Error	1. Servo amplifier parameter number 2 incorrectly programmed. 2. Regenerative resistor not properly connected. 3. Due to frequent operations, the maximum load capacity of the regenerative resistor is exceeded. 4. Due to continuous regenerative operations, the maximum load capacity of the regenerative resistor is exceeded. 5. Regeneration power transistor is short-circuited. 6. Regenerative resistor defective.
1116	0031	Excessive Speed of Servo Amplifier	1. Programmed speed exceeds the allowable rotation speed. 2. Over-shoot due to the constant being too small during acceleration and deceleration. 3. Over-shoot due to a unstable servo system. 4. Servo parameter number 1 incorrectly programmed. 5. Electronic gear ratio too large. 6. Detector connector disconnected. 7. Sensor motor internal mechanism defective. 8. Detector cable damaged or short-circuited.
1116	0032	Excessive Current in Servo Amplifier	1. Servo amplifier UVW output short-circuited. 2. Servo amplifier built-in transistor damaged. 3. Servo amplifier UVW output grounded. 4. Noise in the servo amplifier built-in excessive current detection circuit.
1116	0033	Excessive Voltage of Servo Amplifier	1. Regenerative resistor incorrectly connected. 2. Power transistor for power regeneration damaged. 3. Servo amplifier regeneration resistor damaged. 4. Power voltage too high.
1116	0037	Servo Amplifier Parameter Error	1. Servo amplifier parameter data damaged. 2. Servo amplifier parameter data incorrectly programmed.
1116	0042	Servo Amplifier Feedback Error	1. Motor encoder signal error.
1116	0045	Servo Amplifier Main Circuit Element Overheat	1. Servo amplifier error 2. Cooling error (exceeding 55 °C inside servo amplifier). 3. Overloaded.
1116	0046	Servo Amplifier Motor Overheat	1. Overloaded. 2. Temperature surrounding motor abnormal (exceeding 40 °C). 3. Built-in encoder thermal protection defective. 4. Motor cooling fan defective.

Error No.	Sub-error No.	Error Unit	Cause
1116	0050	Servo Amplifier Overload No. 1	1. Overloaded. 2. Over-shoot due to a unstable servo system. 3. Foreign object caught in the motor. 4. Open amplifier terminal UVW and motor cable UVW are not fitted correctly. 5. Detector connector disconnected. 6. Sensor motor internal mechanism defective. 7. Detector cable damaged or short-circuited. 8. Harness is damaged or short-circuited between P-857 and the servo amplifier. 9. P-857 error. 10. Lift upper limit sensor error. 11. Lift lower limit sensor error.
1116	0051	Servo Amplifier Overload No. 2	1. Overloaded. 2. Over-shoot due to a unstable servo system. 3. Foreign object caught in the motor. 4. Open amplifier terminal UVW and motor cable UVW are not fitted correctly. 5. Detector connector disconnected. 6. Sensor motor internal mechanism defective. 7. Detector cable damaged or short-circuited. 8. Servo amplifier voltage drop. 9. Harness is damaged or short-circuited between P-857 and the servo amplifier. 10. P-857 error. 11. Lift upper limit sensor error. 12. Lift lower limit sensor error.
1116	0052	Servo Amplifier Excessive Allowance	1. Constant too small during acceleration and deceleration. 2. Activation not possible due to low torque. 3. Programming parameter No. 7 is too low. 4. Motor was forced to rotate one turn by an outside cause. 5. Foreign object caught in the motor. 6. Detector connector disconnected. 7. Sensor motor internal mechanism defective. 8. Detector cable damaged or short-circuited. 9. Servo amplifier voltage drop. 10. Harness is damaged or short-circuited between P-857 and the servo amplifier. 11. P-857 error. 12. Lift upper limit sensor error. 13. Lift lower limit sensor error.
1116	0070	Servo Amplifier Detector Error No. 3	1. Detector cable damaged or short-circuited.
1116	0071	Servo Amplifier Detector Error No. 3	1. Detector cable damaged or short-circuited.
1116	0074	Servo Amplifier OP Memory Error No. 1	1. Option card (MR-H-D01) is defective.

Error No.	Sub-error No.	Error Unit	Cause
1116	008E	Servo Amplifier RS-232C Error	1. Harness is damaged or short-circuited between the parameter unit and the servo amplifier. 2. Parameter unit defective. 3. Servo amplifier defective.
1116	008F	Servo Amplifier RS-422 Error	1. Harness is damaged or short-circuited between the P-587 and the servo amplifier. 2. P-587 error. 3. Servo amplifier defective.
1116	0090	Servo Amplifier Original Point Return not Completed	1. Positioning operation performed without returning to original position.
1116	0092	Servo Amplifier Battery Disconnection Warning	1. Servo amplifier built-in in battery voltage drop. 2. Battery cable damaged or battery is defective.
1116	0096	Servo Amplifier Original Position Incorrectly Set	1. Residual pulse remains more than the programmed value.
1116	0097	Lift Upper Limit Sensor	1. Lift upper limit height incorrectly programmed. 2. Lift lower limit height incorrectly programmed. 3. Lift original position height incorrectly programmed. 4. Harness damaged or short-circuited between P-857 and the servo amplifier. 5. Servo amplifier error. 6. P-857 error. 7. Lift upper limit sensor error.
1116	0098	Lift Lower Limit Sensor Error	1. Lift upper limit height incorrectly programmed. 2. Lift lower limit height incorrectly programmed. 3. Lift original position height incorrectly programmed. 4. Harness damaged or short-circuited between P-857 and the servo amplifier. 5. Servo amplifier error. 6. P-857 error. 7. Lift lower limit sensor error.
1117	0000	DC Brushless Controller	1. Ejection pusher motor error. 2. DC brushless controller error. 3. P-587 error.
1119	0001	Film Depleted (Right)	1. End of film. 2. Film taken-in ??????. 3. Film roller clutch brake (right) error. 4. Film sensor (right/front) sensitivity incorrectly adjusted. 5. Film sensor (right/rear). 6. Film sensor (right/front) error. 7. Film sensor (right/rear) error. 8. P-587 error. 9. P-588 (No. B) error. Note: Film depleted error will not occur when P-587 DIP switch No. 8 (SW1) is set to ON while the power is on. This setting used only when responding to an emergency, normally it is set to OFF.

Error No.	Sub-error No.	Error Unit	Cause
1119	0002	Film Depleted (Left)	1. End of film. 2. Film taken-in ??????. 3. Film roller clutch brake (left) error. 4. Film sensor (right/front) sensitivity incorrectly adjusted. 5. Film sensor (right/rear). 6. Film sensor (right/front) error. 7. Film sensor (right/rear) error. 8. P-587 error. 9. P-588 (No. C) error. Note: Film depleted error will not occur when P-587 DIP switch No. 8 (SW1) is set to ON while the power is on. This setting used only when responding to an emergency, normally it is set to OFF.
1122	0000	IONET	1. P-857 error.
1122	0021	IONET No Response	1. P-858 (No. A) DIP switch incorrectly set. No. 1 ON No. 2 OFF No. 3 OFF No. 4 OFF 2. P-858 (No. A) error.
1122	0022	IONET No Response	1. P-858 (No. B) DIP switch incorrectly set. No. 1 OFF No. 2 ON No. 3 OFF No. 4 OFF 2. P-858 (No. B) error.
1122	0023	IONET No Response	1. P-857 DIP switch (SW1) incorrectly set. With option ON Without option OFF No. 1 Auto wrapping option No. 2 Lift auto switching option No. 3 Film auto switching option No. 4 Lower/right installation option No. 5 OFF No. 6 OFF No. 7 OFF No. 8 OFF 2. P-858 (No. C) DIP switch incorrectly set. No. 1 ON No. 2 ON No. 3 OFF No. 4 OFF 3. P-857 error. 4. P-858 (No. C) error.

Error No.	Sub-error No.	Error Unit	Cause
1122	0031	IONET Unexpected Response	1. P-857 DIP switch (SW1) incorrectly set. With option ON Without option OFF No. 1 Auto wrapping option No. 2 Lift auto switching option No. 3 Film auto switching option No. 4 Lower/right installation option No. 5 OFF No. 6 OFF No. 7 OFF No. 8 OFF 2. P-858 (No. A) DIP switch incorrectly set. No. 1 ON No. 2 ON No. 3 OFF No. 4 OFF 3. P-858 (No. B) DIP switch incorrectly set. No. 1 OFF No. 2 ON No. 3 OFF No. 4 OFF 4. P-858 (No. C) DIP switch incorrectly set. No. 1 ON No. 2 ON No. 3 OFF No. 4 OFF 5. P-857 error. 6. P-858 (No. A) error. 7. P-858 (No. B) error. 8. P-858 (No. C) error.
1122	0032	IONET Unexpected Response	1. P-857 DIP switch (SW1) incorrectly set. With option ON Without option OFF No. 1 Auto wrapping option No. 2 Lift auto switching option No. 3 Film auto switching option No. 4 Lower/right installation option No. 5 OFF No. 6 OFF No. 7 OFF No. 8 OFF 2. P-858 (No. A) DIP switch incorrectly set. No. 1 ON No. 2 OFF No. 3 OFF No. 4 OFF 3. P-858 (No. B) DIP switch incorrectly set. No. 1 OFF No. 2 ON No. 3 OFF No. 4 OFF 4. P-858 (No. C) DIP switch incorrectly set. No. 1 ON No. 2 ON No. 3 OFF No. 4 OFF 5. P-857 error. 6. P-858 (No. A) error. 7. P-858 (No. B) error. 8. P-858 (No. C) error.

Error No.	Sub-error No.	Error Unit	Cause
1122	0033	IONET Unexpected Response	1. P-857 DIP switch (SW1) incorrectly set. With option ON Without option OFF No. 1 Auto wrapping option No. 2 Lift auto switching option No. 3 Film auto switching option No. 4 Lower/right installation option No. 5 OFF No. 6 OFF No. 7 OFF No. 8 OFF 2. P-858 (No. A) DIP switch incorrectly set. No. 1 ON No. 2 OFF No. 3 OFF No. 4 OFF 3. P-858 (No. B) DIP switch incorrectly set. No. 1 OFF No. 2 ON No. 3 OFF No. 4 OFF 4. P-858 (No. C) DIP switch incorrectly set. No. 1 ON No. 2 ON No. 3 OFF No. 4 OFF 5. P-857 error. 6. P-858 (No. A) error. 7. P-858 (No. B) error. 8. P-858 (No. C) error.
1122	0041	IONET Parity Framing	1. Abnormal noise.
1122	0042	IONET Parity Framing	1. Abnormal noise.
1122	0043	IONET Parity Framing	1. Abnormal noise.
1122	0051	IONET Initial Status	1. Abnormal noise.
1122	0052	IONET Initial Status	1. Abnormal noise.
1122	0053	IONET Initial Status	1. Abnormal noise.
1122	0101	RS-422 Not Receiving Data	1. Harness damaged or short-circuited between P-587 and servo amplifier. 2. Servo amplifier error. 3. P-857 error.
1122	0102	RS-422 Receiving Time Exceeded	1. Harness damaged or short-circuited between P-587 and servo amplifier. 2. Servo amplifier error. 3. P-857 error.
1122	0103	RS-422 Text Receiving Complete	1. Abnormal noise.
1122	0104	RS-422 Receiving Check Sum	1. Abnormal noise.
1122	0142	RS-422 Sending Parity	1. Abnormal noise.
1122	0143	RS-422 Sending Check Sum	1. Abnormal noise.
1122	0144	RS-422 Sending Character	1. Abnormal noise.

Error No.	Sub-error No.	Error Unit	Cause
1122	0145	RS-422 Sending Command	1. Abnormal noise.
1122	0146	RS-422 Sending Data	1. Abnormal noise.
1122	0162	RS-422 Sending Parity	1. Abnormal noise.
1122	0163	RS-422 Sending Check Sum	1. Abnormal noise.
1122	0164	RS-422 Sending Character	1. Abnormal noise.
1122	0165	RS-422 Sending Character	1. Abnormal noise.
1122	0166	RS-422 Sending Data	1. Abnormal noise.
1122	0200	I2NET	1. P-587 error.
1123	0200	Emergency Stop	1. Emergency stop button is depressed. 2. Harness is damaged or short-circuited between P-857 and P-858 (No. A). 3. Harness damaged between P-857 and electromagnetic contactor. 4. Harness damaged between P-858 (No. A) and the electromagnetic contactor. 5. Harness damaged between electromagnetic contactor and thermal relay. 6. Harness damaged between electromagnetic contactor and emergency stop button. 7. P-857 error. 8. P-858 (No. A) error. 9. Electromagnetic contactor error. 10. Thermal relay error.11. Emergency stop button error.
1125	0001	Film Set Roller Open (Right)	1. Film set roller (right) is open. 2. Film set roller sensor (safety cover sensor) (right) error. 3. P-858 (No. B) error.
1125	0002	Film Set Roller Open (Left)	1. Film set roller (left) is open. 2. Film set roller sensor (safety cover sensor) (left) error. 3. P-858 (No. A) error. Note: This error occurs only when the machine is configured with the auto film switching option.
1127	0001	Film Over (Right)	1. Film over error. 2. Film waste detected. 3. Film sensor (front/right) sensitivity incorrectly adjusted. 4. Film sensor (rear/right) sensitivity incorrectly adjusted. 5. Film sensor (front/right) error. 6. Film sensor (rear/right) error. 7. Film count sensor error. 8. Film cutter clutch brake (right) error. 9. Film cutter original position sensor (right) error. 10. P-587 error. 11. P-588 (No. B) error.

Error No.	Sub-error No.	Error Unit	Cause
1127	0002	Film Over (Left)	1. Film over error. 2. Film waste detected. 3. Film sensor (front/right) sensitivity incorrectly adjusted. 4. Film sensor (rear/right) sensitivity incorrectly adjusted. 5. Film sensor (front/right) error. 6. Film sensor (rear/right) error. 7. Film count sensor error. 8. Film cutter clutch brake (left) error. 9. Film cutter original position sensor (left) error. 10. P-587 error. 11. P-588 (No. C) error.
1128	0000 ~ 0001	Manual Insertion	1. Foreign object caught in the motor. 2. The item contents have spilled over the rim of the tray. 3. Sensitivity level of the Infeed conveyor manual insertion sensor is incorrectly adjusted. 4. Infeed conveyor sensor error. 5. P-587 error. Note: Sub-error 0000: occurs when wrapping operations are not performed. Sub-error 0001: occurs after wrapping operations are performed.
1129	0001	Clamp Middle/Front Solenoid	1. P-858 (No. B) error.
1129	0002	Clamp Side/Front Solenoid	1. P-858 (No. A) error.
1129	0003	Clamp Middle/Rear Solenoid	1. P-858 (No. B) error.
1129	0004	Clamp Side/Rear Solenoid	1. P-858 (No. A) error.
1129	0005	Separator Solenoid (Right)	1. Foreign object caught in the motor. 2. Feeder motor error. 3. Film cutter clutch brake (right) error. 4. Feeder count sensor error. 5. Film cutter original position sensor (right) error. 6. P-857 error. 7. P-858 (No. A) error. 8. P-858 (No. B) error.
1129	0006	Separator Solenoid (Left)	1. Foreign object caught in the motor. 2. Feeder motor error. 3. Film cutter clutch brake (left) error. 4. Feeder count sensor error. 5. Film cutter original position sensor (left) error. 6. P-857 error. 7. P-858 (No. A) error. 8. P-858 (No. B) error.

Error No.	Sub-error No.	Error Unit	Cause
1129	0007	Film Retention Solenoid (Upper/Right)	1. Foreign object caught in the motor. 2. Feeder motor error. 3. Film cutter clutch brake (right) error. 4. Feeder count sensor error. 5. Film cutter original position sensor (right) error. 6. P-857 error. 7. P-858 (No. A) error. 8. P-858 (No. B) error.
1129	0008	Film Retention Solenoid (Lower/Right)	1. Foreign object caught in the motor. 2. Feeder motor error. 3. Film cutter clutch brake (right) error. 4. Feeder count sensor error. 5. Film cutter original position sensor (right) error. 6. P-857 error. 7. P-858 (No. A) error. 8. P-858 (No. B) error.
1129	0009	Film Retention Solenoid (Left)	1. Foreign object caught in the motor. 2. Feeder motor error. 3. Film cutter clutch brake (left) error. 4. Feeder count sensor error. 5. Film cutter original position sensor (left) error. 6. P-857 error. 7. P-858 (No. A) error. 8. P-858 (No. C) error.
1133	0000	No Item	1. Item is not fed on the lift properly. 2. Feed stops before the normal position. 3. Lift height is too low. 4. Lift height is too high. 5. Tray length is too short. 6. Tray height is too low. 7. Item sensor sensitivity incorrectly adjusted. 8. Item sensor error. 9. P-857 error. 10. P-858 (No. A) error. 11. One chip CPU (on the P-857) error.
1134	0000	Infeed Conveyor Removed	1. Infeed conveyor is pulled out. 2. Infeed conveyor front/rear sensor error. 3. P-587 error.
1135	0000	Lift Large/Small Selection	1. Lift large/small incorrectly programmed or film width incorrectly programmed. 2. Feeder move middle position sensor error. 3. P-858 (No. B)
1136	0000	Lift Upper Limit Sensor	1. Lift upper limit sensor error. 2. Lift upper limit height incorrectly programmed. 3. Lift lower limit height incorrectly programmed. 4. Lift original position height incorrectly programmed. 5. Harness damaged or short-circuited between P-587 and servo amplifier. 6. Servo amplifier error. 7. P-587 error.

Error No.	Sub-error No.	Error Unit	Cause
1137	0000 ~ 0002	Lift Lower Limit Sensor	1. Lift lower limit sensor error. 2. Lift upper limit height incorrectly programmed. 3. Lift lower limit height incorrectly programmed. 4. Lift original position height incorrectly programmed. 5. Harness damaged or short-circuited between P-587 and servo amplifier. 6. Servo amplifier error. 7. P-587 error.
1137	0003	Foreign objects caught between the lower part of the lift and upper part of the tray stopper (item sensor path is interrupted when the lift starts to descend).	1. Foreign objects caught in the machine. 2. Item sensor sensitivity incorrectly adjusted. 3. Item sensor error. 4. P-858 (No. A) error.
1147	0001	Infeed Unit Hand insertion error	1. Hand was inserted into the infeed unit during operation. 2. Hand insertion sensor
1147	0002	Infeed Unit Hand insertion error	1. Hand was inserted into the infeed unit during operation. 2. Hand insertion sensor
1150	0001	Door open error	Printer.
1150	0002	Door open error	Under-conveyor.
1150	0003	Door open error	Upper-Right side.
1150	0004	Door open error	Right side.
1150	0005	Door open error	Front-Right side.
1150	0006	Door open error	Upper-Left side.
1150	0007	Door open error	Left side.
1150	0008	Door open error	Front-Left side.
1151	0000	Enable switch error	Enable switch.